

## References

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Table I  
Little League Baseball, Inc. (ages 5-12)  
Injury Contact by Position  
1987 - 1996

INJURY CONTACT	BASE RUNNER	INFIELDER	BATTER	OUTFIELDER	PITCHER	CATCHER	TOTAL
Sliding	3,703 (60.3%)	-	-	-	-	-	3,703 (13.4%)
Colliding	662 (10.8%)	1,025 (17.0%)	-	489 (11.9%)	274 (13.2%)	730 (20.0%)	3,180 (11.5%)
Falling	643 (10.5%)	311 (5.2%)	-	435 (10.6%)	68 (3.3%)	-	1,457 (5.3%)
Thrown Ball	467 (7.6%)	1,856 (30.9%)	-	631 (15.3%)	341 (16.4%)	480 (13.2%)	3,775 (13.7%)
Running	418 (6.8%)	-	-	-	-	-	418 (1.5%)
Batted Ball	35 (0.6%)	2,135 (35.5%)	235 (4.2%)	2,142 (52.0%)	1,022 (49.1%)	313 (8.6%)	5,882 (21.3%)
Tagging	-	179 (3.0%)	-	-	39 (1.9%)	-	218 (0.8%)
Pitched Ball	-	-	4,757 (85.4%)	-	-	852 (23.3%)	5,609 (20.4%)
Hit by Bat	-	-	-	-	-	565 (15.5%)	565 (2.1%)
Other	209 (3.4%)	406 (6.7%)	557 (10.1%)	363 (8.8%)	307 (14.7%)	669 (18.3%)	2,511 (9.1%)
Unknown	-	100 (1.7%)	18 (0.3%)	59 (1.4%)	29 (1.4%)	40 (1.1%)	246 (0.9%)
<b>TOTAL</b>	<b>6,137 (100.0%)</b>	<b>6,012 (100.0%)</b>	<b>5,567 (100.0%)</b>	<b>4,119 (100.0%)</b>	<b>2,080 (100.0%)</b>	<b>3,649 (100.0%)</b>	<b>27,564 (100.0%)</b>

Table 2  
Little League Baseball, Inc. (ages 5-12)  
Injury Contact by Body Part Injured  
1987 - 1996

INJURY CONTACT	KNEE & ANKLE	FACE	HEAD	CHEST	TOTAL
Sliding	1,761 (40.2%)	-	-	-	1,761 (10.3%)
Pitched Ball	318 (7.3%)	1,193 (11.5%)	235 (11.9%)	111 (32.4%)	1,857 (10.8%)
Batted Ball	275 (6.3%)	3,566 (34.2%)	440 (22.2%)	70 (20.4%)	4,351 (25.4%)
Thrown Ball	-	3,581 (34.4%)	437 (22.1%)	35 (10.2%)	4,053 (23.7%)
Hit by Ball	-	941 (9.0%)	-	-	941 (5.5%)
Hit by Bat	-	-	366 (18.5%)	23 (6.7%)	389 (2.3%)
Colliding	567 (12.9%)	417 (4.0%)	202 (10.2%)	53 (15.4%)	1,239 (7.2%)
Falling	467 (10.7%)	-	-	-	467 (2.7%)
Running	423 (9.7%)	-	-	-	423 (2.5%)
Other	522 (11.9%)	530 (5.1%)	278 (14.1%)	49 (14.3%)	1,379 (8.1%)
Unknown	45 (1.0%)	188 (1.8%)	20 (1.0%)	2 (0.6%)	255 (1.5%)
<b>TOTAL</b>	<b>4,378 (100.0%)</b>	<b>10,416 (100.0%)</b>	<b>1,978 (100.0%)</b>	<b>343 (100.0%)</b>	<b>17,115 (100.0%)</b>

**Table 2**  
**Little League Baseball, Inc. (ages 5-12)**  
**Injury Contact by Body Part Injured**  
**1987 - 1996**

<b>INJURY CONTACT</b>	<b>KNEE &amp; ANKLE</b>	<b>FACE</b>	<b>HEAD</b>	<b>CHEST</b>	<b>TOTAL</b>
Sliding	1,761 (40.2%)	-	-	-	1,761 (10.3%)
Pitched Ball	318 (7.3%)	1,193 (11.5%)	235 (11.9%)	111 (32.4%)	1,857 (10.8%)
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# THE NATIONAL COLLEGIATE ATHLETIC ASSOCIATION

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August 7, 2000

Ms. Sadye E. Dunn  
Secretary  
Consumer Product Safety Commission  
Washington, D.C. 20707

Dear Ms. Dunn:

Thank you for this opportunity to comment on the petition (CP00-1) requesting that the Commission issue a performance standard for non-wood baseball bats. The NCAA has adopted a standard for the use of non-wood baseball bats in NCAA regular-season and championship play. The standard was developed for bats used at the skill level of intercollegiate players and has not been examined from the perspective of any other level of competition. We are pleased to share with members of the Consumer Product Safety Commission information related to the specifications the NCAA requires for non-wood bats, as well as a historical profile on how and why the specifications were adopted.

As you may be aware, the NCAA routinely works with its member institutions to develop safe and sound intercollegiate athletics programs, including careful monitoring of the equipment used in athletics competition. The NCAA conducts periodic analyses of injury patterns that lead to refinements in equipment rules and other safety guidelines. Although participation in sports requires an acceptance of some level of risk of injury, student-athletes rightfully assume that those who are responsible for the conduct of sport have taken responsible precautions to minimize the risk of significant injury.

Over the past decade or more, the NCAA has reviewed the injury statistics in the sport of baseball, in particular related to the use of non-wood baseball bats. Although there had not been a significant increase in injury rates attributed to the use of non-wood bats over this time period, there was a growing concern that the balance between offense and defense in the game was skewed with a great increase in home runs and severe diminishment in fielding. Additionally, three years ago anecdotal and other information brought to the attention of the NCAA by baseball coaches, athletics administrators, student-athletes and their parents indicated that the non-wood bat's apparent substantial outperformance of its wood counterpart might be increasing risk to players as well as affecting the integrity of the game. These concerns led the NCAA to take steps to diminish the power of the non-wood bat. The

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Ms. Sadye E. Dunn  
August 7, 2000  
Page No. 2

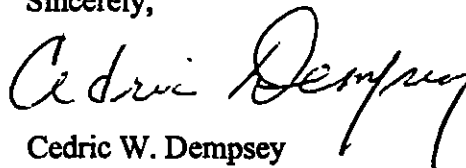
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attached chronology outlines the steps the NCAA has taken to examine characteristics and address the concerns raised about the non-wood bat.

We are pleased that reports from this year's baseball season indicate that the changes in specifications for non-wood bats have made them perform more like wood bats and have resulted in a game that is played with an acceptable amount of risk. However, the NCAA continues to conduct research and monitor the performance of the non-wood bat.

After you have reviewed the attached documents, we would be pleased to answer any questions you may have. Please contact Doris Dixon, NCAA director of federal relations, at 202/293-3050 if you would like to discuss any of the attached materials further.

Sincerely,

A handwritten signature in black ink, appearing to read "Cedric W. Dempsey". The signature is fluid and cursive, with the first name "Cedric" being more prominent and the last name "Dempsey" following in a similar style. The signature is positioned to the right of the word "Sincerely,".

Cedric W. Dempsey

CWD:pas

Attachments

cc: Selected NCAA Staff Members

MacKay Petition Inaccuracies

The MacKay petition contains many inaccurate, speculative and prejudiced statements concerning the actions of the NCAA. The following is an illustrative list of such statements from the pages of the petition and the correct facts.

Page 46: "As a compromise with Easton, the NCAA and Sherwood used a 34-inch, 32-ounce wood bat...in order to increase the exit speed of wood bats so that Easton's aluminum bats would pass the new standard." This is untrue. The choice of the bat was not influenced by Easton nor was it chosen to resolve outstanding litigation. The NCAA's Baseball Research Panel recommended that the bat testing protocol use the 34-31 wood bat to create the parameters for metal bat certification because the panel understood that was the most popular length/weight model in the sport. It was not chosen so that any given bat would pass. Note that the panel now believes the 33-inch bat is more popular than the 34.

Page 46 and page 47: The MacKay petition claims that Easton dropped its lawsuit because the NCAA agreed to use a certain wood bat as its standard. Easton did drop its lawsuit because it concurred with the reasonableness of the new bat protocol, but the NCAA did not formulate the protocol to induce Easton to dismiss its suit. It was fortuitous that at least some of the Easton bats passed the new protocol because it increased the likelihood that Easton would dismiss the suit, but the NCAA did not set the protocol's boundaries to achieve that result.

Page 46: The MacKay petition asserts that the NCAA raised the ball exit speed from 94 to 97 mph although the research panel advocated the lower speed. In fact, the panel concurred with the higher speed after receiving information from Dr. Sherwood that the new official NCAA ball for the upcoming season's baseball championships, manufactured by Rawlings, came off the bat 2 to 3 mph faster than the official ball for the previous year's championships, which was manufactured by Wilson. When the change in the speed of the ball was factored in, the exit speed was about the same as what was proposed the year before.

Page 46: The MacKay petition states, "Ironically, two of Easton's aluminum bats met this new performance standard, while no other manufacturers' bats did." In point of fact, there were 1999 model bats from several other manufacturers that also met the performance standard. Some of Easton's 1999 bats passed the certification test, and some did not. The NCAA never heard a complaint from a single bat manufacturer that the new rules had somehow given Easton an edge in the marketplace.

Page 46: The MacKay petition states, "The NCAA knowingly agreed to expose players to a greater level of danger than what has generally been accepted as reasonable for the game." The NCAA vehemently disagrees with this statement. The NCAA acted responsibly to change the metal bat dimensions to make it perform more like wood as there was an acceptable amount of risk in the wood bat game.

Page 49: The MacKay petition quotes Dr. Sherwood's statement in his 2-7-00 email to NCAA staff that, "I understood the urgency to end the Easton Case and cooperated in resolving that matter." The petition implies the NCAA compromised the bat testing protocol to end the Easton case. In fact, the cooperation requested of Dr. Sherwood was to test Easton bats ahead of any other bat manufacturer's bats so that Easton would see that the proposed protocol was reasonable. Dr. Sherwood was not asked to change any test results or outcomes in order to get positive results for Easton.

Page 49: Dr. Sherwood's comments about serious injury or death resulting from a manufacturer's redistribution weight along the length of the bat (the Moment of Inertia = "MOI") are cited in MacKay's petition. These comments were relating to his perceived loophole in the NCAA's bat-testing protocol and things that might happen in the future, should manufacturers see the loophole and take advantage of it. The petition does not contain the analysis of Dr. Sherwood's data made by a member of the Baseball Research Panel who came to the opposite conclusion: that there was no significant increase in risk due to the MOI factor because it resulted in an increase of less than one mile per hour in ball speed.

Page 51: The MacKay petition implies that the NCAA never responded to Dr. Sherwood's "letters". The NCAA staff has had an ongoing dialogue with Dr. Sherwood about the issues contained in the emails he sent the Association in February 2000, as well as numerous other emails that he has sent staff on a variety of bat and ball issues. The NCAA has clearly responded to his concerns from February. As described in the Timeline accompanying this submission, NCAA staff notified the Baseball Research Panel of the concerns, the panel met with Sherwood at his lab and thereafter to hear his concerns. The panel evaluated his concerns and made recommendations in areas where it believed his concerns were valid. The panel's recommendations were then forwarded to the Baseball Rules Committee, which evaluated them and as a consequence has now made recommendations about changes in the testing protocol for bats and testing of balls.



## **NON-WOOD BAT CHRONOLOGY**

**1974** – Metal bats approved for NCAA regular-season and championship play.

**July 1985** – First research on non-wood/wood bats provided to the NCAA Baseball Committee (Worth Sports Co.).

**November 1985** – NCAA Baseball Committee expressed concern about the possibility of a “super bat.” *Drafted a statement that strongly urged bat manufacturers to produce a non-wood bat that was comparable to the wood bat with respect to sound, balance point and handle flex.*

**November 1986** – Easton Sports recommended specific balance points that it wanted the NCAA Baseball Committee to adopt and proposed that the committee use existing non-wood bats to determine the performance standard.

**December 1987** – First research comparing wood, graphite and aluminum bats provided to the committee (Worth Sports Co.).

**January 1988** – Graphite bats approved for intercollegiate competition on an experimental basis upon mutual consent of competing teams’ coaches.

**September 1988** – Test results provided to the committee by the Department of Aerospace Engineering at Mississippi State University that compared performance levels of non-wood bats.

**November 1988** – NCAA Baseball Committee established the five-unit length-weight ratio for the non-wood bat (34-inch-long bat cannot weigh less than 29 ounces).

**November 1988** – NCAA Baseball Committee adopted an equipment statement for the rules book that relinquished any responsibility by the committee for approving or disapproving playing equipment. The committee stated that it was the manufacturers’ responsibility to produce playing equipment that meets the size and weight specifications stated in the rules and that if playing equipment altered the integrity of the game in any way, the committee reserved the right to intercede.

**June 1992** – NCAA Baseball Rules Committee surveyed college baseball coaches with regard to the performance level of the non-wood bat.

**July 1992** – NCAA Baseball Rules Committee met with six non-wood bat manufacturers and discussed performance standards for the non-wood bat.

**January 1993** – NCAA Baseball Rules Committee met with six non-wood bat manufacturers and five ball manufacturers to discuss performance standards for the non-wood bat and ball.

**July 1995** – NCAA Baseball Rules Committee met with six non-wood bat manufacturers and agreed to develop an interim bat-performance standard for the 1996 intercollegiate baseball season.

**November 1995** – NCAA Baseball Rules Committee forwarded an interim bat-performance standard to the NCAA Executive Committee for approval (the standard was approved). The standard requires that no bat can have a Bat Performance Factor that exceeds 1.14, with a margin of error of .01.

**December 1995** – NCAA Executive Committee approved an interim bat-performance standard request by the NCAA Baseball Rules Committee. The interim standard is a 1.14 Bat Performance Factor, with a margin of error of .01.


**July 1996** – NCAA Baseball Rules Committee forwards a proposal to decrease the length-to-weight unit differential of baseball bats to the NCAA Executive Committee. The proposal states that the unit differential be reduced from 5 to 2 1/2 without the grip, subject to independent scientific research and a six-month comment period for all interested parties. The Executive Committee approved the proposal in August 1996.

**August 1996** – The NCAA Executive Committee approved funding for a baseball and softball bat performance research program directed by Dr. Trey Crisco, director of the bioengineering laboratory at Rhode Island Hospital-Brown University. Dr. Crisco and his team of researchers studied the effects of bat mass and its placement on swing-speed velocity. In addition, Dr. Crisco worked with bat manufacturers to develop a standard testing methodology to measure batted ball exit speed.

**March 1998** – Research provided by Dr. Trey Crisco revealed that additional independent scientific research is needed in order to develop a methodology to measure bat performance. Dr. Crisco recommended that a rigorous compliance program for documenting bat and ball performance should be adopted immediately; that a scientific field study on bat swing and batted ball velocities should be undertaken; that the NCAA Injury Surveillance System should be expanded to include a greater percentage of baseball and softball programs; and that a scientific meeting on bat and ball performance should be conducted for all interested parties.

**April 1998** – ESPN and Fox air specials about metal bats.

**May 1998** – NCAA says it supports the Sporting Goods Manufacturing Association's (SGMA) decision to finance field testing of metal bats. New record was established for hits and home runs during College World Series.



**July 1998** – NCAA joins with the National Federation of State High School Associations to conduct another “bat summit.” On the day before the summit, Steve Baum, a composite wood bat manufacturer, sues the NCAA, the SGMA and three metal bat manufacturers, alleging they unlawfully conspired to not make metal bat rules more restrictive to keep Baum from selling his wood bats. At the summit, Jack MacKay, a former bat designer of Hillerich & Bradsby, says the NCAA has been misled by metal-bat manufacturers about testing issues. Major League Baseball offers to purchase a Baum Hitting Machine for the NCAA.

**July 1998** – NCAA Baseball Rules Committee assesses scientific data and develops new standards that will make bats perform more like wood bats to meet three mandates for rules-making: (1) minimize risk; (2) maintain the proper balance of offense and defense; (3) preserve the integrity of the game. The rules committee votes to recommend that by January 1, 1999, non-wood bats must meet the following standards: (1) -3 weight/length differential; (2) 2 5/8-inch barrel diameter; (3) batted ball exit speed of 94 mph or less. Standards for wood bats remain unchanged.

**August 1998** – Divisions I, II and III Championships Cabinet/Committees vote on the Baseball Rules Committee recommendation. All vote for the new rules, but Division III votes to delay implementation until August 1, 1999. The difference among divisions sends the issue to the Executive Committee. Easton files suit against the NCAA the day before the Executive Committee is to meet, alleging the NCAA conspired with Steve Baum and others to change the bat rule to favor Baum and prevent it from selling metal bats and maintaining its share of the market. The Executive Committee votes to delay implementation of the bat rule until August 1, 1999, to allow new bats to be developed and tested. The Executive Committee instructs the NCAA staff to send a letter to members advising them of safety concerns regarding existing bats.

**August 1998** – The NCAA begins efforts to get Major League Baseball to purchase a Baum Hitting Machine for testing bats. The testing will take place at the University of Massachusetts, Lowell. Eventually, Rawlings will share the cost of the machine with Major League Baseball.

**September to mid-December 1998** – Major League Baseball, Rawlings, Baum and the Massachusetts-Lowell lab negotiate a license agreement for the lab to use the proposed new Baum Hitting Machine. Baum refuses to allow testing on his existing machine until license agreement is signed and he has received payment. The NCAA is in regular contact with Major League Baseball, encouraging a deal to be struck. Baum finally allows some wood bat testing to occur by an independent researcher but refuses to allow him to share his results until license agreement is signed and he is paid.

**November 1998** – The Division I Baseball Committee votes to go to the new bat standard for 1999 Division I Baseball Championship.

**December 1998** – The three Championships Cabinet/Committees conduct a telephone conference call. Divisions II and III vote for the new standard for their championships; Division I votes for implementing only two prongs of the new standard, deleting the velocity of the batted-ball prong of the standard.

**December 1998** – The license agreement is signed and Baum is paid. Results of -3 wood bat testing are shared with NCAA. All tested less than 94 mph.

**January 1999** – NCAA invited to observe metal-bat field-testing sponsored by SGMA to be conducted late January 1999.

**January 1999** – NCAA Executive Committee establishes the two-pronged (diameter and weight-to-length difference) standard for 1999 Divisions I, II and III Baseball Championships. It also agrees to create a panel of independent experts to study risk and game integrity issues in college baseball, with a report to be provided by July 1, 1999.

**March 1999** – The Baseball Research Panel holds its first meeting in Indianapolis and hears from manufacturers of balls and bats (both composite and aluminum). The panel also hears from major researchers in the area of equipment performance.

**July 1999** – The Baseball Research Panel issues a report and makes recommendations concerning bat protocol. These recommendations are made with the intent to make non-wood bats perform like wood bats. Protocol includes using the Baum Hitting Machine at the University of Massachusetts-Lowell with Dr. James A. Sherwood running the testing lab.

**August 1999** – Executive Committee requests more data regarding the protocol and testing procedure before approving the motion.

**September 1999** – Executive Committee approves testing protocol with minor modifications. All bats must be certified for use in NCAA play starting January 1, 2000. The protocol adds a batted-ball exit speed prong.

**October 1999** – Testing begins at UMass-Lowell.

**January 2000** – Bat regulations go into effect. All bats must be certified prior to use.

**March 2000** – Several media outlets run stories that imply "hot" bats are in use.

**April 2000** – NCAA mid-season statistics released for Division I schools. The statistics show a decrease in most offensive categories, including batting average, home runs and hits. The mid-season trends are similar to figures for the 1984 and 1996 seasons.

**May 2000** – Scientists from the Baseball Research Panel and NCAA staff meet in Lowell to discuss certification issues and testing with Dr. Sherwood. The scientists prepare a report to the full panel for a future meeting.

**June 2000** – Baseball Research Panel meets in Chicago and hears separate reports from Dr. Sherwood and the panel's scientists. The panel makes recommendations for changes in the protocol, including a minimum Moment-of-Inertia (MOI) standard, sliding scale for swing speeds in relation to the length/weight of the bat (i.e., a lighter bat may be swung faster) and lower Coefficient-of-Restitution (COR) standard for baseballs. These recommendations are made with the intent to make non-wood bats perform like wood bats.

**July 2000** – Baseball Rules Committee meets in Indianapolis and discusses injury data, statistical trends, Dr. Sherwood's certification report and the Baseball Research Panel recommendations. The committee feels the charge of the committee was not to make non-wood bats perform like wood, but to make non-wood bats perform more like wood. The committee votes to close potential loopholes with the intent of maintaining the level of performance that occurred in the 2000 season. A minimum MOI was established immediately based on legal 2000 bats. A sliding scale was also approved, effective January 1, 2003. The committee also implemented a COR range for baseballs.

**H&B.**

Hillerich & Bradsby Co., Inc.

The hardest hitting  
name in sports.

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**H&B.**

August 10, 2000

VIA OVERNIGHT COURIER

Office of the Secretary  
Consumer Product Safety Commission  
Room 501  
4330 East West Highway  
Bethesda, Maryland 20814

Re: Petition CP00-1, Petition on Baseball Bats

Dear Secretary:

I am writing on behalf of Hillerich & Bradsby Co. to submit our company's comments in response to Petition CP00-1, Petition on Baseball Bats, filed by Jack W. MacKay, Jr.

I have enclosed five copies of the comments and corresponding exhibits for your review. Please do not hesitate to contact me with any questions you may have. Thank you for your consideration.

Sincerely yours,

*M. W. Archer Jr.*

M. W. Archer, Jr.  
President, Louisville Slugger Division

/th  
Enclosures

**COMMENTS OF HILLERICH & BRADSBY CO. WITH RESPECT TO  
PETITION CP 00-1, PETITION ON BASEBALL BATS**

**Introduction and Summary**

Hillerich & Bradsby Co. ("H&B"), the maker of Louisville Slugger® baseball bats, respectfully submits these comments in response to the petition of Jack W. MacKay, Jr. ("MacKay"), dated April 11, 2000, which requested that the Consumer Product Safety Commission ("CPSC" or "Commission") issue a rule concerning the performance of non-wood baseball bats.

As discussed more fully below, H&B is a family-run business that has been making baseball bats for more than 116 years. H&B has a long tradition that parallels the development of baseball, and it has made bats for most of the legends of the game. Although H&B first built its reputation as the maker of wood baseball bats, beginning in the 1970s the company responded to consumer demand for aluminum bats by investing tens of millions of dollars in manufacturing facilities and research and development to produce quality, state-of-the-art non-wood bats. While continuing to improve the design of its aluminum baseball bats, H&B has always made a safe product and has complied with all applicable rules and regulations of sports organizations such as the National Collegiate Athletic Association ("NCAA"), the National Federation of High Schools and others.

Petitioner MacKay has made false statements to the NCAA and other groups, the media and now this Commission, relating to the safety of H&B's aluminum baseball bats, and the events related to MacKay's termination as a consultant to H&B. MacKay has conveniently failed to mention to the Commission that MacKay's relationship with H&B ended after H&B

learned of wrongdoing by MacKay, and that H&B sued MacKay for the theft of H&B's sporting goods equipment, the sale of stolen product for MacKay's personal gain and other acts of deception and fraud against H&B. Complaint (Exhibit 1). H & B also learned that MacKay had failed to assign certain patents and patent applications for certain bats to H&B as MacKay was required to do under his contract with H&B. It is no coincidence that some of these patents and patent applications, for which H&B obtained assignments from MacKay prior to H&B bringing suit, and for which MacKay cannot now wrongfully obtain royalties, were for the very bats that MacKay now claims are "unsafe."

Shortly after bringing suit against MacKay, H&B also learned that H&B was not the first victim of MacKay's fraud. In the case of Waffenschmidt v. Jack W. MacKay, Jr., et al., the jury found that MacKay had committed a fraud upon the plaintiffs, had converted machinery and equipment and had violated the Racketeer Influenced and Corrupt Organizations Act with respect to the plaintiffs by engaging in a pattern of racketeering activity. The jury also found that the conduct of MacKay involved intentional wrong, malice, wilfulness or callous and reckless indifference to the rights of others. Special Verdict (Exhibit 2). H&B further learned that MacKay had a history of making false statements. In the Waffenschmidt case MacKay was also sanctioned and held in contempt by the federal judge who found his testimony to be "patently false." Order of Contempt at page 3 (Exhibit 3).

There is also evidence that MacKay has been conspiring with manufacturers of wood and composite bats to discredit aluminum bats on alleged safety grounds, even though aluminum bats have been safely used in amateur baseball for almost 30 years. Consumers readily choose aluminum bats over these wood and composite bats for many reasons, including performance



characteristics and durability (non-breakage).

Given MacKay's background, and evidence that MacKay has a personal agenda against H&B and is working with H&B's competitors, his petition should be considered with a great deal of caution by the Commission. It is replete with misstatements and material omissions.

Separated from the biases of MacKay himself, the petition itself presents no objective basis to conclude that the rule-making that MacKay requests of the CPSC is warranted or needed. There is no evidence that the rule he seeks - "requiring the wood-like performance of all non-wood baseball (aluminum, composite and graphite) bats" - is "reasonably necessary to prevent or reduce an unreasonable risk of injury associated with such product." 15 U.S.C. § 2056(a). Nor is the rule advocated by MacKay "in the public interest." 15 U.S.C. § 2058(f)(3). The relevant statistics, in fact, show that baseball is one of the safest of all sports, and that there is no statistically significant difference in the batted-ball injury rate in non-wood versus wood games. In fact, some data show that the injury rate has actually decreased during the period of use of aluminum bats in certain amateur baseball leagues.

MacKay points to a couple of incidents where pitchers were hit with balls hit off of aluminum bats, without any proof of causation. In the last decade, however, out of the literally hundreds of millions of times that players have been at bat using non-wood bats there has been no material increase in the batted-ball injury rate. Such injuries occur in the game of baseball for many reasons, and regardless of the type of bat used. Indeed, similar injuries occur in the Major Leagues, with highly skilled players where only wood bats are used.

As the CPSC's counsel noted in a letter to MacKay dated May 23, 2000, MacKay lacks any data "establish[ing] a causal link" between use of non-wood bats and pitcher injuries. Letter

from Stephen Lemberg to J.W. MacKay, Jr. dated May 23, 2000, at page 1 (Exhibit 4).

Moreover, MacKay has not provided any materials to "demonstrate that there has been an increase in injuries involving batted balls." (*Id.*). Nor does MacKay make any effort to weigh "the potential benefits of a rule against its costs." (*Id.*)

In sum, MacKay's petition - while full of false rhetoric and unsubstantiated charges - presents no real evidence that aluminum baseball bats present any safety concern that warrants intervention by the CPSC. The cost to consumers and to the sport of amateur baseball if such a rule were adopted would be enormous, with no concomitant benefit. The Commission should therefore deny this petition.

### **Background**

Although MacKay purports to recount a history of the bat industry and H&B in particular with respect to non-wood bats, the petition is replete with material omissions and false and misleading statements that take out of context and misstate the substance of documents and events. It is impossible to address all of them in the context of a response to this petition. However, it is necessary as an initial matter to briefly address certain of the petition's omissions, misstatements and misrepresentations, and to provide the Commission a brief history of H&B and the development of non-wood bats, so that the Commission may have the benefit of an accurate picture as it considers MacKay's petition.

#### **1. History of H&B and Development of Non-Wood Bats**

H&B has been in the bat-making business for over 116 years. The roots of the company go back to 1859, when J. F. Hillerich, the son of German immigrants, opened a wood shop and barrel-making business in Louisville. Hillerich's son, John Andrew ("Bud") Hillerich, made

H&B's first bat in the 1880s for Pete Browning, who played for Louisville's professional baseball team. As George Will described it,

Pete Browning, an outfielder for the Louisville club, broke his bat. A fan who also was a wood-turner made Browning a new one. The fan's name was John Andrew (Bud) Hillerich. Browning went 3-for-3 in his first game with the new bat and he soon became known as "The Louisville Slugger." So did his bat. A company, and one of America's most famous trademarks, was born.

George F. Will, Men at Work: The Craft of Baseball 197 (1990) (Exhibit 5). H&B and baseball literally grew up together. The company today remains a family-run business. The life blood of H&B is its reputation for quality products; H&B does not and would not make unsafe baseball bats.

In the more than a century since it started making bats, H&B has established itself as the premier manufacturer of wood baseball bats. The Louisville Slugger® has been the bat of choice for literally tens of thousands of professional baseball players through the years, including such legends as Honus Wagner, Ty Cobb, George ("Babe") Ruth, Lou Gehrig, Jackie Robinson, "Pee Wee" Reese, Ted Williams, Mickey Mantle, Joe DiMaggio and Hank Aaron, and more recently such future Hall-of-Fame players as Ken Griffey, Jr., Tony Gwynn and Cal Ripken, Jr.

With the advent of the aluminum bat in the late 1960s and early 1970s, however, H&B began to face a competitive challenge in the bat business. Although H&B continued to sell wood baseball bats to teams in the Major Leagues, which prohibited game use of non-wood bats, amateur and recreational baseball organizations for the most part did not implement these restrictions, and amateur and recreational players increasingly chose aluminum and other metal baseball bats over wood. H&B saw a precipitous drop in its wood bat sales from around seven million per year in the early 1970s to approximately one million in the early 1990s.

There are many reasons why metal bats are preferred over wood bats in amateur play. For example, metal bats can be made at a lighter weight than wood bats. This makes it possible for younger players to learn to play the game more effectively. As one commentator explained,

[a] lighter bat will allow an as-yet physically undeveloped child to learn proper swing mechanics, building muscle memory that will carry into his teen and older years. A heavy wooden bat (most are as much as a half-pound heavier than metal for a given length) will create a physical obstacle to learning proper mechanics as the child struggles to swing the extra weight.

Dave Destler, "Metal vs. Wood," in Junior League Baseball, July/Aug. 1998, vol. 3, no. 4, p. 6 (Exhibit 6).

Non-wood bats can also be designed to have a larger "sweet spot" than wood bats. The sweet spot is the part of the bat that is the most effective area for hitting the ball. It does not take a physics degree to understand the benefit of a metal bat with a more generous sweet spot to a Little Leaguer who is struggling to get a hit at bat.

A myriad of factors go into the design and production of metal bats to make them more appealing than wood bats are to the average consumer. These factors include a wide range of choices of material, barrel thickness, barrel diameter and balance point that can be adjusted to make the metal bat more attractive for amateur and recreational use. Although baseball purists have complained of the "ping" or "bonk" of a metal bat as less desirable than the "crack" of a wood bat when hitting the ball, most amateur and recreational baseball consumers have not been deterred by this characteristic from choosing metal over wood. Metal bats also can provide more durability than wooden bats, which often break and must be replaced.

H&B began to respond to the change in consumer demand by acquiring a multimillion dollar aluminum bat manufacturing facility in Sante Fe Springs, California, in the 1970s. In the

years that followed, H&B invested tens of millions of dollars into research and development so that it could effectively compete in the metal bat manufacturing business. Although H&B continues to make wood bats at its manufacturing plant in Louisville, Kentucky, H&B has recognized that it must continually improve and refine the characteristics of its metal bats so that it can provide amateur and recreational baseball consumers with the products that they desire.

The baseball bat business is a highly competitive industry, with sales driven to a large degree by a manufacturer's investment in new technology and design of its metal bats. Those companies, like H&B, that have committed substantial resources to improve the characteristics of their metal bats have generally succeeded in the marketplace; those companies that have failed to make this commitment have not.

MacKay's petition quotes selectively from internal H&B research and development documents, intimating that they are evidence of some sort of wrongdoing on H&B's part. To the contrary, all that those documents show is that H&B has stayed on the cutting edge of baseball bat design, while conforming to all applicable sports organization rules, so that H&B's bats will be competitive in the marketplace. Although H&B has not advocated the restrictions on baseball bat design that MacKay now allegedly wants, there is no nefarious reason for H&B's position. H&B is not against the wood bat; indeed, H&B remains the largest wood bat manufacturer in the world. H&B, however, does not believe that the game of amateur baseball would be best served by the elimination of existing metal bats or that consumers should be limited in their choice of these metal bats as advocated by MacKay.

The restrictions being pushed by MacKay are simply not warranted by the safety data. Consumers, therefore, should not be denied the opportunity to choose and use state-of-the-art

non-wood bats of H&B and other manufacturers.

**2. MacKay's Background, History and Relationships**

In the early 1990s, H&B entered into a consulting agreement with MacKay. His services were to include, among other things, product research and development for the Louisville Slugger® bat division of H&B, as well as servicing coaches and universities with contractual relationships with H&B. Under these contracts, H&B products were to be provided to such contract schools for promotional purposes and to assist H&B in evaluating and developing new products.

Contrary to what MacKay implies in his petition, the termination of MacKay's consulting agreement with H&B in 1997 had nothing to do with the safety of H&B's bats. MacKay's relationship with H&B ended after H&B learned of wrongdoing by MacKay.

In 1997, H&B brought suit against MacKay and others. MacKay was sued, among other things, for the theft of H&B's sporting goods equipment, the sale of stolen product for MacKay's personal gain and other acts of deception and fraud against H&B. The Complaint also sought to prevent MacKay from disclosing H&B's confidential and proprietary information. Complaint (Exhibit 1).

H&B learned shortly after it brought suit that it had not been the first to be duped and defrauded by MacKay. In Waffenschmidt v. MacKay, No. EC83-81-WK-P (N.D. Miss. 1984), a jury found that MacKay had, among other things, committed fraud, converted equipment and engaged in a pattern of racketeering activity. Special Verdict (Exhibit 2). The jury awarded compensatory damages of over \$7,000,000 and punitive damages of \$600,000 against MacKay. The district court in that case also held MacKay in contempt, stating that MacKay had violated a

court order by attempting "to hide and spend [the plaintiffs'] money as quickly as possible." The Court further found that MacKay had engaged in "contumacious conduct", that "MacKay's testimony at the hearings was patently false and . . . [that] he has flaunted this court's prior orders to such a substantial extent that the court finds he is guilty of civil contempt . . . ." Order of Contempt 3, 5 (Exhibit 3).

H&B had no knowledge of MacKay's prior fraud history when it engaged him as a consultant. Nor did H&B have knowledge that MacKay's résumé misrepresented his educational credentials. MacKay's résumé represented that he had graduated from Mississippi State University. Mississippi State University's records show, however, that MacKay was academically dismissed from Mississippi State University and never graduated. Résumé and Transcript (Exhibit 7).

Since his termination from H&B, MacKay has engaged in a concerted effort to denigrate and slander H&B and its products. He has made false accusations in the media - and now before this Commission - that H&B's bats are unsafe. MacKay apparently is seeking any way that he can to harm H&B and to cover up the true reasons why he is no longer associated with H&B and Louisville Slugger® products.

There is also evidence that MacKay is conspiring with certain of H&B's competitors. To that end, the documents that MacKay has submitted to the CPSC indicate that he has been in regular contact with H&B's competitors such as Steve Baum (of Baum Research and Development Company) and Ted Briedenthal (a former NCAA liaison to the NCAA Division I Baseball Rules Committee who is in marketing with American Walnut Bat Company), that produce either wood bats or composite bats that consumers do not readily choose to play with.

Their efforts have been to lobby the NCAA and other sports organizations -- and now this Commission -- to place restrictions on bat design and consumer choice in hope that sales of their bats might increase.<sup>1</sup>

MacKay also has submitted to the Commission various documents prepared by Bill Thurston of Amherst College. Thurston is a former NCAA rules editor. Thurston is also one of the coaches who arranged for his school to purchase H&B bats in the scheme for which MacKay and others were sued by H&B. Thurston's background is in pitching, and he believes that the college offensive game (i.e., batting) is too strong. While Thurston is certainly entitled to his opinion as to a desirable level of offense in college games, he lacks any hard data to show that there is any unreasonable risk of injury arising from the use of metal bats.

MacKay further relies on documents from James Sherwood, who tests bats on the Baum Hitting Machine for the NCAA at the University of Massachusetts, Lowell. What MacKay fails to disclose, however, is that Sherwood has a vested interest in continually changing the NCAA bat standard. Because U Mass Lowell has the only facility designated by the NCAA for certification testing, U Mass Lowell has a monopoly on such testing. Manufacturers are currently charged \$2,500 per day for certification testing, which must be completed for each new bat model before it can be sold for use in NCAA-sponsored contests. The NCAA is satisfied with the current performance of non-wood bats. Press Release (Exhibit 8). However, Sherwood

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<sup>1</sup> Baum has also tried to effect rules changes through litigation brought against H&B, other metal bat manufacturers, the NCAA and the Sporting Goods Manufacturers Association. The United States District Court for the Eastern District of Michigan dismissed much of Baum's complaint, as amended, for failure to state any claim, and that ruling was later affirmed by the United States District Court for the District of Kansas, where the case had been transferred. Currently pending before the Kansas court is a motion by defendants to dismiss the remaining allegations of Baum's case.



advocates new and further restrictions on bats, which would increase bat-testing revenue. In addition, Baum holds the patent to the Baum Hitting Machine and has threatened to revoke U Mass Lowell's license to use the Machine unless compliance testing is conducted under a standard dictated by Baum that differs from the NCAA-mandated testing protocol. Letter dated January 18, 2000 (Exhibit 9).

In filing his petition, the ultimate goal of MacKay and his allies is to achieve regulation that essentially requires bats to have all of the same characteristics, thereby precluding H&B and other metal bat manufacturers from providing bats to consumers that consumers prefer over inferior bats offered by Baum, American Walnut and others. The means that MacKay has used to achieve this end is to falsely argue in his petition and elsewhere that metal bats pose an unreasonable risk of injury. As discussed more fully below, however, the evidence simply does not support MacKay's rhetoric. His assertions ring no more true than his patently false testimony in the Waffenschmidt case.

### **Discussion**

As the Commission is aware, the Consumer Product Safety Act allows the CPSC to promulgate a product safety standard when such standard is "reasonably necessary to prevent or reduce an unreasonable risk of injury associated with such product." 15 U.S.C. § 2056(a). Furthermore, the CPSC "shall not promulgate a consumer product safety rule unless it finds . . . that the promulgation of the rule is in the public interest." 15 U.S.C. § 2058(f)(3). Applying these legal principles, it is clear that the Commission should not adopt the product safety standard advocated by MacKay, namely a rule requiring "wood-like" performance of all non-wood baseball bats.

**1. There Is No Unreasonable Risk Of Injury Associated With Non-Wood Baseball Bats**

The CPSC must first determine whether the use of aluminum baseball bats creates an unreasonable risk of injury. As the First Circuit explained in D.D. Bean & Sons Co. v. CPSC, 574 F.2d 643 (1<sup>st</sup> Cir. 1978), "[t]he statutory term 'unreasonable risk' presupposes that a real, and not a speculative, risk be found to exist . . ." Based on the available scientific studies and statistical evidence, any increased risk of injury attributable to use of non-wood baseball bats versus wood bats is merely speculative.

Of course H&B, like players and coaches, recognizes that significant injuries can occur during the game of baseball, just like in all sports. However, such injuries are inherent in the game whether it is played with a metal or wood bat. See generally Aqua Slide 'N' Dive Corp. v. CPSC, 569 F.2d 831 (5<sup>th</sup> Cir. 1978) (noting the inherent risks of sports and of consumers' general knowledge of such risks).

MacKay's premise that "the level of risk associated with wood bats has generally been accepted by all associated with the game as the 'reasonable' level of risk" is simply false. It ignores the last 30 years during which aluminum bats have become the bats of choice of consumers and approved for amateur play by responsible governing bodies, including Little League Baseball, the National Federation of High School Associations, the NCAA and others.

Statistics show that amateur and recreational baseball today, which is played almost exclusively with non-wood bats, remains among the safest sports that a consumer can choose to play. Because of the relative safety of baseball, the risks associated with the game are not unreasonable. A review of the relevant data from each age level of play shows that the risks

associated with playing baseball with aluminum bats are reasonable.

a. **Youth Baseball.** Little League baseball, which uses non-wood bats almost exclusively, monitors injury data and this year published a position statement on non-wood bats. In it Little League Baseball and Softball report a 76% decrease in the number of injuries occurring to pitchers from batted balls over the eight-season period beginning in 1992. Little League Baseball Statement on Non-Wood Bats. (Exhibit 10). As Dr. Creighton J. Hale, Senior Advisor to Little League stated in 1999:

There are 200,000 teams in our program which play an average of 18 games per season which would total 3,600,000 games involving 7,200,000 pitchers. It can be quickly deduced that the incidence of injuries to the pitchers by batted balls is infinitesimal. There are many more players fatally injured by lightning and while going to and from practices and games. (Exhibit 11).

And as for injuries to children playing baseball and softball outside of organized leagues, a recent study published in Pediatrics suggests similar findings regarding the low incident of injury.

(Exhibit 12). Based on this study of trauma center hospitals that treat children ages ten to nineteen in the District of Columbia, it was determined that bicycling injuries account for the greatest proportion of hospitalizations. (Id.) Baseball and softball resulted in the lowest incident of hospital visits. (Id.) Of the hospital visits associated with baseball and softball injuries, only 7% of those were associated with intracranial injuries.<sup>2</sup> (Id.) This rate was lower than the intracranial injury rate associated with both bicycling and soccer. (Id.).

b. **High School.** On July 29, 1999, in proposing a change in its bat rule, the National Federation of High Schools Baseball Rules Committee stated in pertinent part:

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<sup>2</sup> The report did not distinguish between intracranial injuries between pitchers or other players or resulting from a batted ball, thrown ball or collision.

We are aware that student-athletes have suffered bat-related injuries in 1999 and in previous years. However, the committee is not aware of a material change in the rate of such injuries. Nor does the committee believe that the rate of such injuries has yet become materially greater than it would be if wooden bats were in general use. NFHS Press Release (Exhibit 13).

The National High School Baseball Coaches Association, an organization whose members are high school baseball coaches from coast to coast in all states within the United States that have interscholastic baseball, also recently spoke on the subject of non-wood bats through Mr. Jerry Miles, its Executive Director. Memorandum, August 11, 1999 (Exhibit 14). Three key points made by the Coaches Association were:

- The [NFHS] Rules Committee acknowledged "that the rate of such (aluminum bat) injuries has yet to become materially greater than it would be if wooden bats were in general use."
- The fact that a youngster, regardless of size, has an equal chance to hit is a major attraction in baseball for kids. The current aluminum bats provide that opportunity and any change to heavier bats could eliminate it.
- Like it or not, the aluminum bat has been good for high school baseball as well as colleges and youth programs. Realistically, in many cases, the aluminum bat has saved the sport of baseball from elimination.

Moreover, in a recent study of traumatic brain injuries in high school athletes, boys baseball was shown to have had the lowest occurrence of mild head injury, traumatic brain injury or mild traumatic brain injury ("MTBI") of all boys sports in the study.

(John W. Powell, PhD, Traumatic Brain Injury in High School Athletes, Exhibit 15).

There was a higher rate of MTBIs in basketball, football, soccer and wrestling. (*Id.*)

During the years of 1995-1997, there were fifteen (15) MTBIs in baseball. (*Id.*) Of these fifteen incidents, none were the result of a player being hit by a batted ball. (*Id.*)

Similarly, a study by the National Center for Catastrophic Sport Injury Research showed that the direct injuries per 100,000 participants in baseball from 1982-1998 was

reasonable compared to the injury rates of other male sports. (National Center for Catastrophic Sport Injury Research, Sixteenth Annual Report, Exhibit 16). The study showed a fatality rate of .10 out of 100,000 participants. (Id.) This rate is lower than lacrosse, track, gymnastics, ice hockey, football and soccer. (Id.) Similarly, the data showed a non-fatal (permanent severe functional disability) rate of .18 per 100,000 participants in baseball. (Id.) This rate is lower than lacrosse, football, gymnastics, ice hockey, swimming and wrestling. (Id.) Finally, the report showed a serious (no permanent functional disability but severe injury) rate of injury of .19 per 100,000 participants. (Id.) This rate is lower than football, gymnastics, ice hockey, swimming and wrestling. (Id.)

c. College. The NCAA's Injury Surveillance Statistics show that baseball is the safest of all men's intercollegiate sports tracked by the NCAA. (NCAA Injury Surveillance System, Exhibit 17). And, in a January 15, 1999 press conference Mr. Cedric Dempsey, President of the NCAA, responding to a question posed by Mr. Steve Rock at T.C. Star regarding the NCAA's injury surveillance system, stated "most of the information we have collected over the last decade would indicate that injuries have been somewhat flat, it you will, in baseball." January 15, 1999 Rebroadcast of NCAA teleconference, (Exhibit 18). Moreover, the NCAA Baseball Rules Committee is satisfied with the level of risk associated with existing non-wood bats, (Exhibit 8).

A study after the 1998 season indicated that there were 375 incidents of pitchers being hit by a batted ball. (Kent Biggerstaff, Bat Survey, Exhibit 19). This number should be considered in the context of the literally millions of times that NCAA players

were at bat during the 1998 season. Most of these pitcher injury incidents were minor, as only eleven percent (11%) were serious enough to merit a physician's attention. (Id.)

While no injury is to be taken lightly, it is important to note that the pitcher injury rate in collegiate baseball, which is played almost exclusively with non-wood bats, is comparable to the pitcher injury rate in Major League Baseball, which is only a wood game. According to a recent study, there were 316 injuries reported during the 1998 Major League season resulting from pitchers being hit by a batted ball. (Biggerstaff, Exhibit 19). Of those players, thirty-four (34) pitchers (11%) had to be taken out of the game and required the attention of a physician (id.) – the same percentage of injured pitchers in collegiate play that required medical treatment. In addition, six pitchers (approximately 2%) suffered injuries in Major League games that were so serious that they were placed on the disabled list. (Id.).

A study in the Clinical Journal of Sport Medicine of collegiate baseball between 1991 and 1993 showed that only 4% of total injury complaints were the result of head injuries and of these complaints, there was no lost playing time. (Edward McFarland, M.D., Epidemiology of Collegiate Baseball Injuries, Exhibit 20). The study revealed that strains and sprains are the most common injury mechanism, and that the upper extremity is most commonly injured and results in the most time lost from participation. (Id.) The study found that "head and facial injuries were not common." (Id.) In fact, the report noted that "baseball has the lowest injury rate for concussions and head and neck injuries among all collegiate sports surveyed." (Id.)

d. Adult Recreational. In a recent study conducted by the CPSC, it was

shown that baseball and softball related injuries which required visits to an emergency room for persons 35-54 years of age decreased between 1991 and 1998. (CPSC, Baby Boomer Sports Injuries, Exhibit 21).

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As shown above, the risks associated with playing baseball are comparably small. Baseball is one of the safest sports which an athlete chooses to play. There is absolutely no evidence which establishes an unreasonable risk because of aluminum baseball bats. As with any sport, there are risks of injuries that cannot be eliminated. However, it is clear that the use of wood bats at the Major League level does not eliminate the risks associated with being a baseball pitcher. In fact, the injury statistics were comparable to those at the collegiate level, where non-wood bats are almost exclusively used. As such, the risks associated with playing baseball with non-wood bats cannot be found to be unreasonable.

**2. The Rule Proposed By MacKay In His Petition Is Not Reasonably Necessary To Prevent Or Reduce The Alleged Risks of Playing Baseball, And Does Not Serve The Public Interest.**

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A mandatory rule issued by the CPSC to regulate non-wood bats is not reasonably necessary to prevent or reduce the alleged risks of playing baseball. In the first place, as discussed above, there is no evidence that non-wood bats have unreasonably increased the inherent risks to pitchers and other players from batted balls.

Moreover, there are many factors that contribute to injury risks from batted balls

that have nothing to do with the bat. These include the hardness/softness of the ball,<sup>3</sup> improper coaching or playing,<sup>4</sup> a player's use of performance enhancing substances, a player's use of alcohol, size of the strike zone, the color of the back-drop behind the batter, poor field conditions, unsafe locations and other factors. As a result, attributing the cause of batted-ball injuries to non-wood bats is further unsupportable.

Because there is no data establishing that any significant batted ball injuries can be directly attributable to baseball bats, let alone non-wood, as opposed to wood, bats, it is improper, as a legal matter, for the CPSC to issue a safety regulation. D.D. Bean & Sons Co. v. CPSC, 574 F.2d 643 (1<sup>st</sup> Cir. 1978). Given the lack of evidence showing increased risk from use of metal bats versus a wood game, the CPSC cannot be assured that the rule proposed by MacKay -- requiring all metal bats to have "wood-like performance" -- would reduce the frequency or severity of injuries in baseball. Aqua Slide 'N' Dive Corp. v. CPSC, 569 F.2d 831 (5<sup>th</sup> Cir. 1978). There must be a "sufficient nexus between the regulation and the hazard it is designed to prevent." Forester v. CPSC, 559 F.2d 774 (D.C. Cir. 1977). As such, there is not a sufficient basis to promulgate the rule advocated by MacKay.

Moreover, the issue of pitcher safety has been, and continues to be, studied by

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<sup>3</sup> The CPSC has determined that softer-than-standard baseballs and softballs, which have a softer, spongier core than standard baseball and softballs "can reduce ball impact injuries." (CPSC Press Release, Exhibit 22).

<sup>4</sup> Baseball players should be taught how to respond properly to the batted ball. "I've heard eyewitness reports of kids panicking and walking right into the ball, but if you watch Cal Ripken, he tucks his head and rolls his shoulder so that his scapula takes the blow." (The Physician and Sports Medicine, Exhibit 23). Some coaches use reflex fielding drills, such as hitting line drive at pitchers using softer balls. Also, a pitcher must make sure that he or she properly finishes the delivery so that the pitcher is well balanced and not falling off to the side. In addition, a pitcher's glove should not continue past his or her hips so that it is in a better position to catch a ball hit directly to the pitcher.



organized baseball leagues at all levels of play. This is clearly not an area of safety review that has been ignored by private rule-making organizations. The NCAA and the National Federation of State High School Associations have taken an active interest in whether non-wood bats pose any unreasonable safety risk, as have the Little League and other leagues for younger children. For example, in a letter dated January 20, 1999, Ronald Tellefsen, President and CEO of the Babe Ruth League, Inc, explained:

As a follow up to our conversation on metal bats during the American Baseball Coaches Convention in Atlanta, Babe Ruth League, Inc. has not found the metal bat to be an unreasonable risk to our players. Our team accident insurance loss ratio did not warrant any increase in premium to our leagues for the 1999 season. Furthermore, we did not experience any premium increase in 1998.

Babe Ruth League, Inc. will continue to study the bat as well as the baseball with our insurer in order to obtain the frequency and patterns of significant injury.

It will always be the policy of Babe Ruth League, Inc. to demonstrate care for the players as we are always willing to look at issues on safety and rely on the judgment of experts.

Babe Ruth League, Inc. will not be making any current changes relative to the usage of the metal bat.

(Exhibit 24).

There are rule making bodies and leagues which have reviewed whether any unreasonable safety concerns arise from use of metal bats, and there is no apparent need for CPSC intervention given the willingness of private organizations to address the issue and the evidence showing the lack of any substantial safety problem arising from use of non-wood bats, at all levels, including the youth, high school and collegiate level.

Moreover, the rule-making advocated by MacKay is not based on an objective standard. MacKay's definition of what constitutes "wood-like" performance for a bat is contained at Exhibit 39 of Mackay's petition. A review of that document, which is on Baum letterhead, quickly discloses that MacKay's definition of "wood-like" performance for a bat is what Baum, a competitor of H&B and other metal bat manufacturers, wants it to be in the hope of eliminating metal bats from the market and increasing sales of Baum's products. H&B believes that such definition is seriously flawed. Moreover, it is predicated on the use of the Baum hitting machine to which H&B and other competitors of Baum are denied access without exorbitant payments to Baum.

Baum's definition fails to take into account numerous relevant factors. In its century-plus of experience in the wood bat business, H&B has produced over 6,000 different models of wood bats for professional players. The variables that may affect the performance of these bats are numerous. For example, the lengths range from a 30-inch bat made for Harry Hinchman in 1907, to a 38 3/4-inch bat used by Hall-of-Famer Al Sanders. The weights range from the 54-ounce bat used by Babe Ruth to a 28-ounce bat made for Alvin Dark. The thinnest handle was 15/16ths of an inch on Stan Musial's bat; by contrast, "Shoeless" Joe Jackson's bat had a 1 3/8th inch handle. Some wood bats, such as Ken Griffey Jr.'s, have a hollowed-out end in the shape of a cup. Bats are made from different types and grades of wood. These and other factors that go into the construction of a wood bat may affect its performance.

Other variables also affect the measurement of any bat's performance. The size, strength and ability of a player swinging the bat of course all matter substantially, as they

affect the speed at which the bat is swung. The mass, hardness and speed of the pitched ball also matters. Other factors that may influence the performance of a bat include the ball's surface conditions, the direction of the ball and bat respectively at impact, the location on the bat and ball where impact occurs, air resistance, weather conditions, and the coefficient of restitution of the bat - ball.

A presentation of the serious technical flaws with the MacKay (Baum) definition of wood-like performance is not warranted at this time, as there is no evidence that existing aluminum bats pose an unreasonable risk of injury. Moreover, MacKay's proposed rule to ban non-wood bats that do not meet his chosen standard does not serve the public interest, given that existing non-wood bats do not pose an unreasonable risk of injury and given the impact such a rule would have on consumers and producers.

Approximately 19 million youths participate each year in baseball and softball.

MacKay's proposed regulation could potentially result in a parent of practically every youth ball player in America having to purchase a new bat for his or her child to meet the new standard. This would result in a considerable expense to families across the country. Also, high school and college budgets would be affected, as currently used metal bats would need to be replaced. MacKay's rule would also unfairly penalize companies such as H&B that have invested tens of millions of dollars in the manufacture, research and development of non-wood bats that would be banned under MacKay's regulation.

The use of aluminum bats has made amateur and recreational baseball more popular than ever. It is easier with a metal bat for a young player to play the game and learn proper techniques to develop his or her abilities. Players of all ages prefer non-

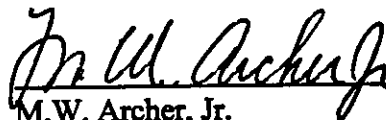
wood over wood, as evidenced by the predominant use of metal bats in all levels of amateur and recreational play today. Fan interest in the amateur game has also increased during the past three decades of use of metal bats. College baseball has seen a continual rise in attendance at games. The 2000 College World Series drew 200,917 fans, a record average of 22,324 per session. (Exhibit 25). It is the fourth straight year that the College World Series has set a record for session average attendance. In fact, the 2000 attendance is an increase of almost 180,000 from 1950 and 120,000 from 1975. In addition, individual schools are seeing an increase in attendance. Total attendance at Louisiana State University games during the 2000 season was 286,874, which averages 7,355 per game in a stadium that has a capacity of 7,760! (Exhibit 26).

Aluminum bats have played an important role in the increasing popularity of baseball. Approximately 19 million children play baseball each year, with the hope that they can someday be the next Ken Griffey, Jr., Mark McGwire or Sammy Sosa. If they had to play with heavy wood bats, many of these children would be discouraged from ever playing the sport. Aluminum bats allow youth players to perform at a better level than they would with heavier wood bats, keeping them interested in the game. Indeed, from a policy perspective, it makes sense to allow equipment such as existing aluminum bats that encourages interest in baseball vis-a-vis other sports because baseball is one of the safest sports in which young people participate, and there is no unreasonable risk of injury associated with such bats.

**Conclusion**

MacKay's petition, though vitriolic, rests on no objective, scientific proof that existing non-wood bats pose any unreasonable risk of injury or that banning of such bats, as effectively sought by MacKay, is in the public interest. MacKay's petition should therefore be denied.

Respectfully Submitted,  
HILLERICH & BRADSBY CO.

  
M.W. Archer, Jr.  
President, Louisville Slugger Division

*Insured*

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Stevenson, Todd A.

From: Sophie Llorens [sophie123@yahoo.com]  
Sent: Sunday, August 13, 2000 12:46 PM  
To: cpssc-os@cpssc.gov  
Cc: RHogner@fiu.edu  
Subject: "PETITION CP 00-1, PETITION ON BASEBALL BATS"

Petition CP 00-1, Petition on Baseball Bats

When the master of ones creation speaks out against his own creation it is wise to carefully evaluate the reasons why. J.W. Mackay Jr., while working at Hiller & Bradsby CO. during the 1970's, led a team that designed the first metal bats. With his help, Louisville Sluggers and other metal bats became the standard at most collegiate, high school, and little league games. These bats were accepted at these levels because they were viewed as affordable and safe replacements for wood bats, which often broke when used incorrectly. Since then bat manufacturers have rapidly improved the technology used in these bats. Today these monster bats dwarf the original models and their design improvements have led to skyrocketing prices. Mr. Mackay has advocated banning these metal terrors completely, but his rule proposal is a more modest approach. Baseball configurations were developed based on the performance of wooden bats. Mr. MacKay's request to make metal bats adhere to these same performance standards is not only fair but also long overdue.

Already too many youths and collegiate have paid the price for these non-regulated bats. These high performance aluminum bats can increase the speed a ball bounces off the bat by over 10-20 m.p.h. Those numbers come from the manufacturers themselves who flaunt these numbers despite the increased danger they cause. Baseballs can travel in excess of 123 m.p.h. when launched from these powerful weapons. Some studies have already shown that a pitcher caught off-balance with his weight shifting toward the plate after a pitch, has no chance of avoiding a ball hit towards them from a metal bat. Coach Sanchez, from a local 12 and under team, has witnessed enough damage stemming from these bats that he states "there is no way I would allow any of my teams to practice with one of these high performance bats." He prefers to use one of the older models that are not as explosive. Mr. Sanchez is not alone in opposition of these bats; the American Baseball Coaches Association, the National Federation of High School Sports and most recently the National Collegiate Athletic Association are also against these high performance bats. The NFSHSA committee has proposed a change in specifications for non-wood bats that in size, weight and moment of inertia would replicate wood. It would require that non-wood bats have a two-inch maximum barrel diameter and a minus three unit maximum differential. "Such a weight and moment of inertia means the effort required to swing a non-wooden bat would be about the same as that required to swing a wooden bat," said committee

members.

The NCAA, in 1999 decided to allow only wood-like metal bats in its College World Series, because studies proved what Mr. Mackay already knew, these new metal bats are dangerous. The NCAA now requires that bats used by collegiate teams have a maximum-batted ball velocity of 93 m.p.h. Furthermore, they now require that all bats used be certified, and have stiff penalties for bats that violate these rules. The NCAA rule committee also approved a shift to narrower bats in order to limit the bats "sweet spot" which is where most of the power of a bats is located.

The chairman of the rules committee, Bill Rowe Jr, said "these recommendations will make the game safer for all participants." Samuel H. Smith, chairman of the committee that approved these changes said there was "real and serious" potential for injury before these changes.

The NCAA did not just randomly choose the 93 M.P.H. maximum it was derived from scientific data. Physics test show that a ball hit off a bat at 93-94 M.P.H. gives a pitcher about .4 seconds to react which research shows is just enough time to avoid the ball. Obviously a ball leaving a bat at 123 M.P.H. wouldn't give a pitcher the same courtesy. Baum is a research & development firm certified by Major League Baseball to study the effects of the improved technology in metal bats and their results further strengthen our cause to regulate these bats. Among their findings were metal is 2-3 times stiffer and harder than wood, metal is 5 ounces lighter than wood, and metal bats have a "sweet spot" 470% larger than wood bats, on average. Their study also found the wide spread of these high powered bats has indirectly increased the number of arm injuries suffered by youths since they have to throw more curveballs to offset the dominance of these bats. With bats this powerful not only are pitcher and fielders at increased risk of injury but so are umpires and spectators. Although there are some coaches that are more concerned with winning the game than the well being of their players, the majority would favor a rule that could protect their players.

Anyone who enjoys the game of baseball appreciates the sweet sound of a wooden bat hitting a ball. Ridding the world of the horrible ping noise made by metal bats would be reason enough to ban them, however, metal bats can serve a purpose, if they are regulated and adhere to performance standards. One of the main reasons Mr. Mackay helped create these metal bats was to make bats more affordable to all, yet the price of one of these new aluminum alloy bats can exceed \$300.00, where are the savings in that when a good wooden bat can be bought for under \$100.00? Wood-like bats would dramatically lower the price of metal bats making them more affordable for everyone that is exactly why Easton, a top metal bat manufacturer, is suing the NCAA over their new rules. Easton and other bat manufacturers know that as they improve the performance of these bats they can continue to raise prices for them, so they don't want the performance scale to be limited. What is rational

for Easton though, isn't rational for society. If performance standards aren't set as this rule proposes, these bats will get better and better and baseball players throughout will pay the price. It isn't too difficult to imagine players being fearful of playing any where in the infield out of fear of the rockets being launched from these ever improving launching pads. As coach Tony from the Miami Marlins "broncos level" team says "you begin to feel the anxiety when the other teams big bopper steps into the batters box, not because he might hit one over the fence but because he might knock one of your players head off." It is time for bat manufacturers to follow set performance standards, the NCAA has realized this, Major League baseball has realized this and it is time we realize this as well. The bat manufacturers won't regulate themselves despite producing what Mr. Mackay calls "terrifying" bats so we must do it for them. This rule can have far reaching results and it should be passed before another child suffers a severe injury caused by one of these "juiced" bats. Once such injury occurred two years ago in Glendale California, seventeen-year old Julius Riofrit was struck in the temple and killed by a ball hit with an aluminum bat. The NCAA experienced a 17% drop in injuries after setting their performance standards that should be reason enough to support Mr. MacKay's proposal.

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**UNITED STATES CONSUMER PRODUCT SAFETY COMMISSION**

**EASTON SPORTS, INC.'S WRITTEN COMMENTS  
CONCERNING PETITION REQUESTING PERFORMANCE  
REQUIREMENTS FOR NON-WOOD BASEBALL BATS (CP 00-1)**

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**Attorneys for Easton Sports, Inc.**

**Dated: August 14, 2000**

## INTRODUCTION

Easton Sports, Inc. ("Easton"), by and through its attorneys, Honigman Miller Schwartz and Cohn and Brown & Freeston, hereby submits its written comments concerning the Petition Requesting Performance Requirements for Non-Wood Baseball Bats (CP 00-1) (the "Petition") submitted by J. W. MacKay, Jr. ("Petitioner").

The Petition should be summarily rejected by the Consumer Product Safety Commission (the "Commission") and no performance standard should be promulgated because non-wood baseball bats do not present an unreasonable risk of injury to baseball players. Non-wood baseball bats have been the standard bats used in all levels of baseball, except professional baseball, since the mid-1970's. Statistics show that baseball injury rates are among the lowest of any intercollegiate sport. Furthermore, the rate of injuries to pitchers (who Petitioner and others claim are most vulnerable) is very low.

Moreover, contrary to the Petitioner's assertion that non-wood bats are becoming more dangerous, the number of reported injuries to Little League pitchers struck by batted balls has *decreased* by 76% since 1992. National Collegiate Athletic Association ("NCAA") statistics show that the rate of injuries from batted balls has been low for each reported year, and has decreased in the latest reported period.

There is also no statistical evidence indicating that the issuance of the rule requested by Petitioner would significantly reduce injuries caused by batted balls. Petitioner does not and cannot cite to any evidence that a single reported injury from a ball batted by a non-wood bat would not have occurred if batted by a wood bat or a bat with similar performance characteristics. In fact, injury statistics comparing Major League Baseball (which

uses only wood bats) with NCAA baseball (which uses non-wood bats) show a higher rate of injury to pitchers from balls batted with wood bats.

The Petition is simply an ad nauseum presentation of irrelevant history concerning the bat performance rule adopted by the NCAA, unscientific *opinions* by Petitioner and other biased individuals (who stand to profit if the rule advocated by Petitioner is implemented) and largely irrelevant anecdotal injury reports. The Petition fails, however, to present any scientific data showing any causal link between the use of non-wood bats and the reported injuries. The Commission noted these glaring deficiencies in its May 23, 2000 letter to Petitioner. Petitioner, however, has not, and cannot, address them. Furthermore, Petitioner's past record of fraud proves that his representations should not be relied upon by the Commission.

While a very small percentage of players have been struck by balls batted by non-wood bats, such injuries are extremely rare and are the result of risks inherent in the game of baseball, regardless of the type of bats used.

For these reasons, there is no reason for the Commission to undertake the complicated and extensive rulemaking effort requested by Petitioner.

#### **The Injury Statistics Do Not Indicate an Unreasonable Risk to Participants**

Relevant statistics from amateur baseball indicate that very few injuries result from balls batted by non-wood bats, and that baseball is overall a very safe sport. Furthermore, there is no indication that deadening the current aluminum bats would reduce these injuries.

An analysis of the Commission's National Electronic Injury Surveillance System ("NEISS") Database, through May 31, 1998, conducted by Dr. Edward Heiden (the former

Director of Strategic Planning at the Commission) showed that only five percent of all baseball injuries with known sources or causes (56 of 1,141) resulted being hit by a batted ball (Tab 1). Dr. Heiden analyzed every reported injury associated with baseball for the year 1998 in the NEISS national sample of emergency rooms. Furthermore, Dr. Heiden estimated that injuries to pitchers hit by batted balls accounted for only 2.5% of total reported injuries with known sources. Id. Dr. Heiden also examined recent data, which indicated that the percentage of reported baseball injuries resulting from contact with batted balls was only 2.9% in 1999 and 2.6% through May 31, 2000. (Tab 2). These numbers have remained relatively constant since 1994.

Little League Baseball reported that the number of pitchers hit by batted balls decreased by 76% between 1992 and 1999, even as the number of participants increased. Little League Baseball Incorporated, "Little League Baseball Statement on Non-Wood Bats," (May 2, 2000) (Tab 3). Little League Baseball statistics show that in 1992 there were 145 reported injuries to pitchers from batted balls. This figure has steadily decreased in each succeeding year since 1992. In 1999, there were only 28 such injuries from a total of 2,518,755 participants. Id. The Associated Press also reported that a Little League official saw "no reason to stop using aluminum bats, . . ." "Former Bat Designer Asks Government to Recall High-Performance Metal Bats," Associated Press (April 19, 2000, PM Cycle) (Tab 4).

Little League Baseball made the same conclusion in an official statement in 1998, which stated:

"At present, injury data in all divisions of Little League Baseball and Softball shows that there has been a DECREASE in reported injuries to pitchers as a result of batted balls over the six-year period beginning in 1992. Data on injuries to pitchers

is being used because the pitching position is closest to the batter, and the pitcher is least likely among all fielders to be fully prepared when the ball is hit.

During the same six-year period, the number of injuries to other fielders as a result of batted balls has remained relatively constant or decreased. . . .

[I]njury to players in youth baseball overall has decreased by 2.63 percent from 1987 through 1995, while during the same period, injury rates and activities such as basketball, football and in-line skating has risen . . . . [L]ess than three-tenths of 1 percent of the U.S. Little Leaguers are injured in games or practices to the point of requiring medical treatment. This data was obtained by analyzing medical claims on accident insurance policies provided by Little League.

In conclusion, there appears to be no indication that would cause Little League to mandate a limit on the weight of bats, based on the most current facts."

Little League Baseball Media Release, "Little League Baseball Statement on Non-Wood Bats," (May 14, 1998) (Tab 5).

The NCAA's Injury Surveillance System ("ISS") database also showed a low incidence of injury. (Tabs 6-9) The NCAA's ISS showed that batted ball injuries to pitchers accounted for only 3% of all reported baseball injuries in 1998, down from 4% in 1994. (Tab 7). This survey projected a total of only 63 such injuries per year (regardless of severity) from batted balls to pitchers from all NCAA schools. (Id.) Batted ball injuries to all players accounted for 6% of all reported baseball injuries for the 1997-1998 and 8% of all reported injuries in the 1998-1999 season. (Tabs 8-9). Additionally, the percentage of batted ball injuries per 1000 athletic exposures<sup>1</sup> decreased from 0.145 in the 1997-98 season

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<sup>1</sup> An athletic exposure is one athlete participating in one practice or game in which he or she is exposed to the possibility of an injury. "Baseball, Softball Injury Rates Still Among NCAA's Lowest," NCAA News (Sept. 1, 1997) (Tab 10).

to 0.129 in the 1998-99 season. (Id.) Moreover, these figures also included injuries caused by bad bounces, which may not relate to the speed of a batted ball.<sup>2</sup>

Baseball also remains one of the safest NCAA sports according to the ISS statistics for the years 1986-99. There were only 2.2 total injuries (from all sources and to players in all positions) per 1,000 athletic exposures in practice and 6.1 injuries (from all sources and to players in all positions) per 1000 athletic exposures in games. (Tab 10) "Spring Sports Study Reveals Increased Risk for Baseball, Softball Base Runners," NCAA News, (Sept. 27, 1999) (Tab 14). (See also Tab 9).

Other independent studies have confirmed that there is not an unreasonable safety risk in baseball. Dr. Fred Mueller, Director of the National Center for Catastrophic Sports Injury Research states that in high school and college baseball, "catastrophic" injuries – those resulting in death or disability – are "almost non-existent." "Safe on First," Endeavors (1998) (Tab 15). Dr. Mueller and Dr. Robert Cantu recently reported that for the period 1982 through 1997, there were only 28 total catastrophic injuries (from all sources and to players in all positions) in high school baseball, which corresponded to an injury rate of 0.45 per 100,000 participants. There were only four catastrophic injuries (from all sources and to players in all positions) in college baseball, which corresponded to an injury rate of 1.25 per 100,000 participants. R. Cantu, M.D. and F. Mueller, Ph.D., "Fatalities and Catastrophic Injuries in High School and College Sports, 1982-1997," The Physician and Sports Medicine, Vol. 27, No. 8 (Aug. 1999) (Tab 16); see also R. Cantu, M.D. and F. Mueller,

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<sup>2</sup> The only reported fatality caused by a batted ball to a college player was from a wooden bat. "Line Drive Puts UA Athlete in Coma," The Tucson Citizen (July 13, 2000) (Tab 11); "UA Infielder Dies After Hit by Ball," Arizona Republic (July 13, 2000) (Tab 12). The player was participating in the Northeastern Collegiate League, a summer league that uses wooden bats. (Tabs 12, 13)

Ph.D., Sixteenth Annual Report (Fall 1982-Spring 1998), National Center for Catastrophic Sports Injury Research. (Tab 17).

Dr. Mueller and his fellow colleagues also analyzed injuries in Little League Baseball (which includes participants ages 5 - 18) between 1987 and 1996. This study confirmed that "[t]en years of data from Little League Baseball, Inc. actually show that youth baseball is essentially a very safe activity." F. Mueller, S. Marshall and D. Kirby, "Injuries in Little League Baseball - 1987-96" (Tab 18). The study found that Little League had an annual average of 1,722,121 participants and 29,038 total injuries over this period. The greatest number of injuries, 21.1%, were associated with the runner and only 7.2% of the total injuries were to the pitcher. Injuries to the pitcher by a batted ball accounted for only 3.7% of the total injuries and for less than half of the total injuries to all pitchers. The study also revealed no fatalities to pitchers from being hit by batted balls over this 10-year period. Id.

USA Baseball (the national governing body for amateur baseball in the U.S.) also performed a study of injuries from 1989 through 1999. National Center for Catastrophic Sports Injury Research, University of North Carolina at Chapel Hill, "National Amateur Baseball Catastrophic Injuries Surveillance Final Report: 1989-1999 (USA Baseball Medical/Safety Advisory Committee)" (Tab 19). This study found that "the catastrophic injury rate for the 11 years is only 0.11 injuries per 100,000 participants. This figure is very low."

#### The Injury Rate for Wood Bats is Higher Than for Aluminum Bats

The major assumption underlying the Petition is that wood bats present an acceptable safety risk and that aluminum bats do not, and therefore wood bats should be the performance standard. Yet, the available data on contact with batted balls disproves any

causal link between the type of bats used and injuries from batted balls. Thus, one can conclude the rule sought by Petitioner would not necessarily decrease the number of players hit by batted balls.

Statistics cited by Petitioner showed that through the end of the 1998 regular season of NCAA baseball 175 pitchers were hit (but not necessarily injured) by batted balls. Assuming this statistic reflected 25% of the Division I teams, and assuming 52 games per season (which is the average number of 1998 regular season games per Division I team (Tab 20)), this statistic showed that one pitcher was hit every 20.7 games in NCAA Division I baseball, using aluminum bats. Major League Baseball reported that 316 pitchers were hit in the 1998 season. This showed a higher rate of pitchers struck by balls batted by wood bats – one pitcher was hit every 15.4 games.<sup>3</sup> (Tab 21). According to Kent Biggerstaff, the author of this study, trainer for the Pittsburgh Pirates and past president of the Professional Baseball Athletic Trainers Association, “[u]sing wooden bats will not eliminate the injuries pitchers sustain during the baseball season. The percentage of injuries needing a physician’s attention and those considered serious in nature were constant with both the metal and wood bats.” (Tab 22).

#### **Testing Data Show a Negligible Performance Difference Between Wood and Aluminum Bats**

Exit velocity testing verifies that Petitioner’s requested rule would not serve to further reduce the already low safety risk associated with aluminum bats. Although Easton does not dispute that aluminum bats are better performing in terms of durability, consistency, reduced vibrations and overall comfort, testing data does not reveal a significant difference between wood and aluminum in terms of batted ball exit velocity. A study of

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<sup>3</sup> 316 hits ÷ 4860 (30 teams x 162 games)



bat speed performed by Dr. Sherwood (who Petitioner cites extensively) on the Baum Hitting Machine showed only a 1 mph difference between the highest performing wood bats and aluminum bats. L. Fallon, J. Sherwood and R. Collier, "Program to Develop Baseball Performance Procedures Using a Dynamic Hitting Machine and Provide Verification with Laboratory Test Results – Final Report" submitted to Major League Baseball (Dec. 11, 1997) (Tab 23).

**Petitioner Relies on Unscientific and Distorted Data, Which Do Not Support His Conclusions**

Petitioner relies almost solely on an unscientific, and extremely distorted, survey conducted by William Thurston, the former editor of the NCAA Baseball Rules Committee, (Petition at pp. 56-57). This "survey" was apparently undertaken to dispute the conclusion from the NCAA's ISS that batted ball injuries are extremely rare. Randall W. Dick, the NCAA's Assistant Director of Sports Science testified, however, that the Thurston survey reported any contact between a pitcher and a batted ball and was not restricted to injuries. Mr. Dick testified as follows:

- "A. It [the injury survey] requires any contact between a pitcher and a batted ball as – where the pitcher did not have an ability to react to the ball.
- Q. But this is not restricted to injuries, it is any contact under that description, isn't that right?
- A. That is correct."

Deposition of Randall W. Dick, In re Baseball Bat Antitrust Litigation (No. 98-MC-1249), at 69. (Tab 24) Indeed, the survey reported cases where a pitcher was "hit in the shin by a batted ball, didn't even complain about it, kept on pitching, never took any time off, never got any medical attention, . . ." or where "a pitcher was hit in the rear end by a batted ball, apparently because he was facing away . . . ." *Id.* at 80, 216-17.

Indeed, the survey form specifically indicated "[t]here is no minimum injury criteria ..."<sup>4</sup> and instructed participants to exclude only batted balls that were deflected by a glove and did not contact the body or contacted the body as a result of a bad hop. (Tab 25). For these reasons, the Commission should disregard this survey.

Petitioner also cites to Cedric Dempsey's August 28, 1999 letter, which discussed 14 isolated cases of injuries from batted balls over a four-year period. Easton's investigation, however, proved that these accounts were inaccurate and do not show any unreasonable safety risk. For example, two of the cases involved bounced balls (which were not a function of batted ball velocity), four cases involved injuries which occurred during batting practice,<sup>4</sup> one occurred when a ball ricocheted off a curb and struck a person behind the batting cage and two of the cases did not occur at all. (Tab 26).

Petitioner also includes a host of similarly irrelevant injury reports – e.g., reports on players being killed and injured by *pitched and thrown* balls, base runners (who obviously do not field batted balls) struck by batted balls, players injured by ricocheted balls and Major League players struck by balls batted by *wood* bats.

Therefore, the Petition is devoid of any valid injury statistics that support Petitioner's assertion that non-wood bats present an unreasonable safety risk. The only valid injury data show overwhelmingly that such a risk is not present.

#### **The Commission and Other Organizations Have Not Recommended Limiting Bat Performance**

Not a single safety organization that has studied safety in baseball has advocated the type of a draconian performance rule advocated by Petitioner. The Commission and other

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<sup>4</sup> Batting practice is typically pitched from behind a protective screen located 45' from home plate. Batting practice pitchers are instructed to get behind the screen before the ball is even hit, which can be easily accomplished.

groups that have recommended the use of certain safety equipment, changes to the ball and better instruction.

In 1995, the Commission collected and analyzed data on baseball, softball and T-ball-related deaths and injuries. It also studied voluntary safety standards and reviewed public scientific literature evaluating protective equipment. Based on these analyses, the Commission found:

"that three pieces of safety equipment will help reduce injuries. Softer-than-standard baseballs and softballs, which have a softer, spongier core than most standard baseballs and softballs can reduce ball impact injury. Face guards that attach to batting helmets and protect the face could reduce injuries to batters. Safety bases that release from their anchor could reduce sliding injuries. Safety release bases that are based on age, gender, and skill levels of the players provide the best protection."

News from CPSC, (June, 1996) (Tab 27).

Dr. Mueller's studies for the National Center for Catastrophic Sports Injury Research and Little League Baseball also did not recommend limiting bat performance as a means of reducing the risk of injury. Instead, Dr. Mueller recommended protection for batting practice pitchers, proper instruction on sliding, the use of safety bases and softer balls. (See Tabs 17-18).

Finally, a 1994 study by the American Academy of Pediatrics, which examined, among other things, statistics compiled by the Commission, also did not recommend changing the performance characteristics of non-wood bats. The Academy recommended the use of approved batting helmets, a catcher's helmet, chest and neck protectors, rubber spikes, the elimination of the on-deck circle, protective fencing for dugouts and benches, the use of breakaway bases, eye protectors for batters, restricting the amount of pitching,

proper instruction in biomechanics, and better education of parents, coaches and children. The Academy also recommended consideration of low-impact baseballs and softballs. Academy of American Pediatrics, Policy Statement, Vol. 93, No. 4 (Apr. 1994) at pp. 690-92 (Tab 28).

#### **Petitioner's Reaction Time and Velocity Assumptions Are Flawed**

Petitioner cites a number of times to his assumption that a pitcher needs more than 0.400 seconds in order to safely react to a batted ball. From this, Petitioner advocates a 93 mph batted ball velocity limit. This reaction time assumption was literally invented by Petitioner and is not supported by any data or study by Petitioner or anyone else.<sup>5</sup> Petitioner also implies that Richard Brandt, Ph.D. of the New York University Department of Physics and other (unidentified) "sources" agreed with his conclusion. This is absolutely false.

Dr. J. J. (Trey) Crisco III, Ph.D. reviewed studies on reaction time in his study for the NCAA Research Program on Bat and Ball Performance (Nov. 13, 1997) (Tab 29). Dr. Crisco concluded that "[t]he total response time from contact of the batted ball was thus estimated to be 325 ms (0.325 seconds)." (Id. at 9). Dr. Crisco stated that the minimum time required for a subject to react to a stimulus is 0.125 seconds and 0.200 seconds is the estimated time to move an arm to prevent injury from being struck by the ball. This corresponds to a batted ball velocity of 115 mph. Id. at 9-10.<sup>6</sup>

Dr. Brandt also conducted a reaction time study using 31 male and female subjects from college, high school, recreational, senior and youth league baseball and softball. He attempted to measure a safe response time and hit ball speed in college baseball, senior

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<sup>5</sup> Petitioner relies entirely on his note, "deadly," scribbled on a chart containing arithmetic calculations of how long it takes to travel 54' at various speeds, not accounting for air resistance. This chart has absolutely no data on reaction time.

<sup>6</sup> Coaches have commented to Easton that reaction time can be further decreased with proper training.

softball, and women's high school softball. He concluded that a safe response time is 0.368 seconds. Interestingly, one of the subjects of Dr. Brandt's study was Petitioner MacKay, who was the oldest subject. Mr. MacKay's safe reaction time was 0.368 to 0.387 seconds. Thus, it is, at best, disingenuous for Petitioner to consistently argue that a 0.400 seconds is the only safe reaction time. "Response Times for High-Speed Ball Reflections in Baseball and Softball," (Third Draft, October 19, 1998) (Tab 30).

**There is No Reason to Account for Moment of Inertia in the Bat Performance Measurement**

The Petition, at numerous points, makes references to the so-called moment of inertia ("MOI") loophole, which Petitioner alleges allows certain non-wood bats to be swung faster and therefore produce higher batted ball velocities than the 97 mph limit in NCAA and high school baseball. This is irrelevant, given the overwhelming data that, regardless of their batted ball velocity, non-wood bats do not present an unreasonable safety risk. Moreover, there is no scientific support for Petitioner's assertion that an MOI loophole exists. This argument is consistently made by individuals with a financial interest in restraining quality competition among bat makers and forcing amateur players to use heavier, "dead" bats.

The MOI loophole argument advocated by Petitioner contends that the strategic placement of weight closer to the handle in certain non-wood bats will allow the bats to be swung faster and cause higher velocity hits. Engineering professors Robert G. Watts of the Tulane University Department of Mechanical Engineering and A. Terry Bahill of the Department of Systems and Industrial Engineering of the University of Arizona concluded that there is no relationship between bat weight and batted ball velocity and that the swing speed of a bat and subsequent batted ball velocity is more dependent on each par-

ticular player. They stated, "[i]deal bat weight is specific for each individual player. . .", players develop consistent speed swings with differently weighted bats and there is less than 1 percent variance in batted ball speed caused by varying the bat's weight. R. Watts and A. Bahill, Keep Your Eye on the Ball: The Science and Folklore of Baseball (1990) at 92-112 (Tab 31).

**The NCAA Did Not Conclude that Wood was the Only Acceptable Level of Risk**

Contrary to Petitioner's assertions, the NCAA Baseball Research Panel did not conclude that the level of risk associated with aluminum bats in college baseball was unacceptable. The Panel merely stated that:

"Given the fact that baseball has been played with wooden bats since the inception of the game, the group determined that the level of risk associated with wooden bats is generally accepted by all associated with the game,' [said Milton Gordon, Chair of the Baseball Research Panel] 'therefore, the Panel recommends that a standard tied to the performance of wooden bats will result in risk levels acceptable to the sport.'"

NCAA Press Release, "Wood-Like Performance Recommended for Non-Wood Bats," Jun. 12, 1999 (Tab 32). This simply reflected the Panel's observation that wood was an historically accepted standard – not that aluminum was not an acceptable standard.

**The NCAA Rule is Effective in Limiting Bat Performance**

NCAA officials have noted it believes that the current rule is effective in limiting bat performance. According to Don Kessinger, Chair of the NCAA Baseball Rules Committee, "[t]his season's baseball bats are not as hot as last year's baseball bats." "Mid-Season Trends Point to Decline in Offensive Performance," NCAA News (May 8, 2000) (Tab 33). Batting averages declined from .306 in 1998 to .294 in the middle of the 1999 season. Home runs per game declined from 1.06 in 1998 to 0.77 at the middle of the 2000 season.

Ty Halpin, the NCAA's Publications Editor and Liaison to the Baseball Rules Committee, stated, "[t]he decline in offense can be attributed to changes in the NCAA's bat protocol." (Id.) The NCAA Baseball Rules Committee was satisfied with the current rules and recommended "no immediate changes in the specifications for manufacturing baseball bats . . . ." "Baseball Group OKs Status Quo on Bat Standards," NCAA News (July 31, 2000) (Tab 34). The Committee determined that the current bats "perform more like wood bats . . . ," and concluded that the MOI for future bats will not be less than the MOI for bats that were certified for 2000. The Committee also concluded that there simply was not enough data to warrant changing the current MOI standard, as Petitioner requests. Id.

#### **Bias of Petitioner and Others**

Petitioner and other individuals, (with whom Petitioner has coordinated several attacks on non-wood bats and are extensively cited in the Petition), all have financial and other motivations to support a rule that would favor wood and other "dead" bats. Furthermore, Petitioner's questionable history calls into question his truthfulness.

#### **Petitioner**

Petitioner J.W. MacKay, Jr. has a tremendous financial motivation to eliminate competition from aluminum bats through the proposed rule. One press report several years ago indicated that Petitioner stated that he "has a deal with Rawlings, another bat manufacturer, to make a product that hits more like wood . . . ." Thus, Petitioner has for some time had an interest in having high performance aluminum bats eliminated, so that he could face less competition in any new venture. In fact, the notes of one NCAA Rules Committee member reports that when Petitioner was lobbying for a more restrictive bat rule in July, 1998, he stated that he "can have new bats in one month."

Exhibit 20-A to the Petition also indicates that Petitioner has been retained as an expert witness for a party making claims against aluminum bat manufacturers, alleging that their bats are unsafe. Thus, Petitioner has a direct financial motive in a rule further regulating aluminum bats.

Petitioner also has a history which should make anyone especially cautious about any statement he makes. In a case captioned Waffenschmidt v. MacKay, Mr. MacKay was found by a jury to have "either made fraudulent misrepresentations or aided and abetted others in doing so . . . ." The judge in the same case found that the plaintiffs have "demonstrated that . . . MacKay made statements of material fact [which] were false, and known by . . . MacKay . . . to be false . . . ." The court found that Petitioner committed violations of the Federal Securities Act of 1933 and the Securities Exchange Act of 1934 "by engaging in manipulative fraudulent devices to effectuate transfers of corporate stock . . . ." The court went on to find that Petitioner violated a court order by attempting "to hide and spend Waffenschmidt's money as quickly as possible." As a result, he was found in civil contempt and jailed. At a hearing considering the civil contempt charge, the court found that "MacKay's testimony at the hearings was patently false and . . . he has flaunted this court's prior orders to such a substantial extent that the court finds he is guilty of civil contempt . . . ."

Steve Baum

Mr. Baum, whose unscientific comments are extensively cited by Petitioner, is a manufacturer who makes relatively "dead" wood-composite bats which cannot compete with aluminum bats. Baum has apparently promised to support Petitioner's efforts. Petition at 4. Baum himself admits in his proposed Second Amended and Supplemental Com-



plaint in In re Baseball Bat Antitrust Litigation at ¶68 (Tab 35) that if given a choice, college "teams would insist on using [aluminum] bats," rather than Baum's bats. He also admitted that "[n]o teams or conferences would use wood or wood-composite bats [such as Baum's bat] so long as the NCAA continued to give its approval to the high performance bats . . . ." Id. Thus, Baum admits that he cannot sell his bats unless the NCAA prohibits the aluminum bats which are universally preferred by college players and coaches. Baum has been on a crusade to invent a safety concern so that people are forced to buy his bats and not be allowed any alternative other than wood. The above facts lead to this conclusion.

Baum's bias is illustrated by the fact that he himself has tried to sell a high performance bat, but unsuccessfully. As recently as May 1998, his own web site advertised his "rocket Baum bat," which he said "is comparable to the power that metal bats generate . . . this bat will make your players seem like power hitters regardless of their size or age." Thus, Baum has no compunctions about selling the high performance bats that he and Petitioner now claims are unsafe. He has chosen his "safety" campaign only when he realized that he would not compete with the aluminum bats.

Baum has raised his criticism in a federal court lawsuit, In re Baseball Bat Litigation: Baum Research and Development Co v. Hillerich & Bradsby Co, et al., (MDL Docket No. 1249, D. Kan.; E.D. Mich. Case No. 72946). Most of his complaint in that lawsuit has now been dismissed twice, by two different federal judges. One of the judges dismissing Baum's antitrust claims stated that "Baum's injury stems from the competition itself: the performance of Baum's wooden composition bat is inferior to that of bats manufactured by [other competitors]." 31 F. Supp. 2d 1016, 1023 (E.D. Mich. 1998) (Tab 36). The other court noted that "this is essentially a case in which [Baum] complains that a competitor

[Baum] fell prey to competition." 75 F. Supp. 2d 1189, 1198 (D. Kan. 1999) (Tab 37). The court added that "the elimination of a competitor was the direct result of 'the economic freedom of participants in the relevant market.'" *Id.* The remaining claims are the subject of a pending motion to dismiss.<sup>7</sup>

### Conclusion

For the reasons set forth herein, there is no need for the Commission to undertake a rulemaking proceeding relating to non-wood bats.

Respectfully submitted,

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Attorneys for Easton Sports, Inc.

Dated: August 14, 2000

<sup>7</sup> Mr. Baum also owns the patent on the hitting machine currently used by the NCAA to certify bats, and is attempting to again amend his current complaint to force the NCAA to adopt biased testing protocols which could virtually eliminate aluminum bats from NCAA play, and thus favor his own inferior bats.

# HEIDEN ASSOCIATES

## Report of Dr. Edward J. Heiden

My name is Dr. Edward J. Heiden. I am President of Heiden Associates, Inc., an economics and product safety consulting firm located in Washington, D.C. that specializes in the statistical and economic analysis of hazards and risks associated with products used by consumers and in the workplace. Prior to forming my consulting firm, I was chief planning economist at the U.S. Consumer Product Safety Commission (CPSC), the federal agency charged with ensuring the safety of consumer products sold.

In September of 1998, I was asked by counsel for the firm of Honigman, Miller, Schwartz, and Cohn to conduct a preliminary general evaluation of the seriousness of the hazard and level of risk associated with the use of aluminum bats in practicing and playing baseball. Specifically, I was asked to focus on the hazard associated with participants, especially pitchers, and other exposed individuals being hit by batted balls during practices and games where aluminum bats were used. Finally, I was asked to make a preliminary determination of whether the hazard and risk associated with the "hit by batted ball" phenomenon reached a level of seriousness that would make it a candidate for regulatory attention by the CPSC.

To conduct my preliminary inquiry, I relied on various sources of data: (1) recent data collected and analyzed by the NCAA Sports Sciences Section through safety-related surveys of member teams; (2) data for the year 1998 on injuries associated with baseball collected by the CPSC through its national sample of emergency rooms in U.S. hospitals, known as the National Electronic Injury Surveillance System or NEISS; (3) a 1995 CPSC report on hazards to children associated with baseball, to our knowledge the most recent report issued by the agency relating to the sport; and (4) CPSC's recent planning documents, including its Strategic Plan under the Government Performance and Results Act and its 1999 Annual Performance Plan.

For the purposes of this inquiry, I have made the assumption that the survey sample data available from the NCAA and CPSC were sufficiently reliable and representative in their methodology and conclusions to support inferences and conclusions based on them. Accordingly, I did not conduct any further evaluation of these survey data.

This analysis shows the following:

1. Based on NCAA survey sample data for the 1995-6 season for sixteen collegiate sports, baseball was the safest of the sixteen sports surveyed. The survey design used a method of analysis which compared the number of reported injuries in each sport, adjusted to reflect the total number of games and practices in which all athletes in the sample for that sport participated,

## HEIDEN ASSOCIATES

both during practices and during games. Based on this measure, baseball was more than twice as safe as spring football, wrestling, winter gymnastics, and women's and men's soccer. It was more than 50 percent safer than football, men's lacrosse, men's basketball, ice hockey, women's basketball, men's gymnastics, and field hockey. It was also safer than the women's sports of volleyball (about 40 percent safer), lacrosse (about 20 percent safer), and softball (about 15 percent safer).

2. Based on NCAA annual survey sample data for three years, injuries arising from contact with batted balls accounted for only a small fraction (less than 10 percent) of total baseball-related injuries—ranging from 8.5 percent in 1994-95 to 7.7 percent in 1997-98. Several other hazards accounted for a significantly greater percentage of total injuries than being hit by a batted ball. These included illustratively (for 1997-98): hit by ball thrown by pitcher, 17 percent; hit by ball thrown by non-pitcher (17 percent); injury through contact with ground, 10 percent; and injury with no contact, 24 percent.

Analysis of CPSC NEISS data through May 31 of 1998 for baseball-related injuries shows that the fraction of total baseball injuries that involve being hit by a batted ball is even smaller than the number shown by NCAA data. Of injuries reported to CPSC's NEISS data base whose source or cause was known, five percent (56 of 1141) involved an individual being hit by a batted ball. It should be noted that NEISS data are not limited to collegiate injuries, but rather include baseball-related injuries to parties of all ages.

3. The fraction of collegiate baseball injuries involving a pitcher being hit by a batted ball appears to be significantly smaller than for all batted ball contact injuries, based on NCAA survey sample data for the years 1993-98. Pitchers being hit by batted balls averaged only three percent of all collegiate baseball-related injuries for these years. CPSC NEISS show a comparable fraction of pitchers hit by batted balls. These data show that of the five percent of all known-source injuries associated with being hit by a batted ball on NEISS where it was further known whether the pitcher or someone else was hit, a total of 8 of 15 cases (53 percent) involved the pitcher being hit. Thus pitchers being hit by batted balls for the NEISS baseball injury data appear to represent about 2.5 percent (53 percent of 5 percent) of total source-known cases.

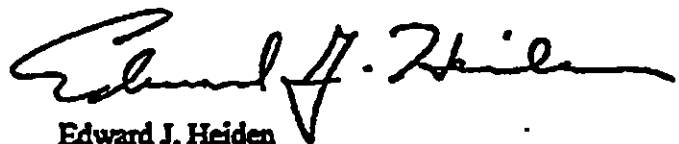
4. Based on additional NCAA data from a recent survey that included questions on injury severity, the severity level of injuries involving collegiate pitchers hit by batted balls is typically not high. A total of 21 percent of such injuries required no medical attention, and 70 percent had no time lost from games or practices. A total of 4 percent missed two or more games or practices, and only 1 percent required surgery. Of sixteen collegiate sports surveyed by the NCAA, where injuries were compared with total participation, baseball had the second lowest (behind women's lacrosse) surgery-required injury rate. Further, there is no record in the NCAA data base of any fatality involving a pitcher hit by a ball delivered by an aluminum bat.

## HEIDEN ASSOCIATES

5. I have seen no evidence that use of an aluminum rather than a wooden bat contributes at the margin to the risk of injury from batted balls hitting the pitcher. Limited data are available from a partial (first two months of the 1998 season) study by Bill Thurston, which indicates that the number of injuries arising from a batted ball hitting the pitcher in Division I collegiate games where aluminum bats are used does not appear to be significantly different from the number in major league games (where wooden bats are employed). Based on Thurston's sample, one pitcher was hit in every 14.1 Major League games; one in every 21.0 games for the Division I collegiate players.

For the reasons set forth above, the data I have reviewed indicates that aluminum bats are not a product that either should or would be likely to draw the regulatory attention of CPSC as a potentially hazardous product. The specific evidence supporting this conclusion includes the high level of exposure-adjusted comparative safety of baseball in general relative to other surveyed NCAA sports, the low numerical significance of the hit-by-batted ball hazard relative to other baseball hazards in general (less than 10 percent of all injuries) and for pitchers in particular (about 3 percent of all injuries), the low level of severity that characterizes the great majority of hit-by-batted-ball injuries, and the lack of evidence of any incremental risk from using aluminum bats rather than wooden ones as the venue by which the small number of hit-by-batted-ball injuries actually occur.

This conclusion is reinforced by the fact that in CPSC's most current hazard report on baseball-related injuries, a 1995 project report titled Final Report Youth Baseball Protective Equipment Project, there is no discussion of aluminum bats in the entire report, even though the hit-by-batted-ball hazard is extensively treated. Further, aluminum and/or wooden bats are not mentioned in CPSC's 1999 Performance Plan documents or Strategic Plan documents, which discuss in detail the agency's product and project agenda and priorities for the current fiscal year.





Edward J. Heiden

October 23, 1998


**Exhibit**  
**Number and Percentage of Baseball-Related Injury Incidents**  
**on CPSC's NEISS Data Base**  
**Involving Being Hit by Batted Ball,**  
**1994 - May 31, 2000**

<b>Year</b>	<b>Total Injuries</b>	<b>Injuries Involving Being Hit by Batted Ball</b>	<b>Percent of Total Injuries Involving Being Hit by Batted Ball</b>
1994	4,394	135	3.1%
1995	4,781	93	1.9%
1996	4,748	134	2.8%
1997	4,377	74	1.7%
1998	4,272	103	2.4%
1999	4,912	144	2.9%
1/1-5/31/2000	2,476	65	2.6%
<b>TOTAL:</b>	<b>29,960</b>	<b>748</b>	<b>2.5%</b>






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## LITTLE LEAGUE BASEBALL STATEMENT ON NON-WOOD BATS

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Little League Baseball has received numerous inquiries from its volunteers and media regarding the safety of non-wood bats.

### Background

Recent innovations in metal alloys have allowed a reduction in the weight of some models of bats, while allowing the bats to remain in conformity with the length and diameter guidelines in the various divisions of Little League Baseball and Softball. Some volunteers and those in the media have raised questions about whether the weight of the bats used in Little League games should be limited, relative to the length.

Non-wood bats were first developed, partly through research by Little League, as a safer and more cost-effective alternative to wooden bats. Non-wood bats were first used in Little League in 1971, and have almost completely replaced wood bats in all divisions of play. Wood bats, which can break in half if not used properly, are now widely used only in professional baseball.

As a member of USA Baseball, the governing body for all amateur baseball in the U.S., Little League Baseball follows the recommendation of the USA Baseball Medical and Safety Advisory Committee. The position of the Advisory Committee is that further research and data needs to be collected before any changes are made to Little League rules regarding the weight of bats. There is currently no rule in any division of Little League Baseball or Softball that places a maximum or minimum limit on the weight of bats.

### Statement

At present, injury data in all divisions of Little League Baseball and Softball shows there has been a 76 percent decrease in reported injuries to pitchers as a result of batted balls over the eight-season period beginning in 1992. Data on injuries to pitchers is being used because the pitching position is nearest the batter, and the pitcher is the least likely among all fielders to be fully prepared when the ball is hit.

During that same eight-year period, the number of injuries to other fielders as a result of batted balls has remained relatively constant or decreased. A summary of the data is attached, along with participation figures and the current bat specifications for each division.

In 1997 alone, nearly 60,000 children ages 5 to 14 were treated in hospital emergency rooms for in-line skating-related injuries, according to the National Safe Kids Campaign (NSKC). Among the same ages in the same year, more than 150,000 football injuries and 200,000 basketball injuries were treated, NSKC reported. That year, NSKC said, more than 125,000 baseball and softball injuries were treated in hospital emergency rooms nationwide. However, only 70 injuries in Little League Baseball and Softball activities, ages 5 to 18, were reported that year.

Annually, less than three-tenths of one percent of U.S. Little Leaguers are injured in games or practices to the point of requiring medical treatment. Injury data for Little League are obtained through analyzing medical claims on accident insurance provided by Little League through CNA Insurance. More than 95 percent of the chartered Little League programs in the U.S. are enrolled in the Little League Group Accident Insurance plan.

In conclusion, there appears to be no indication that would cause Little League to mandate a limit on the weight of bats, based on the most current facts. Statistics show that Little League's record on safety continues to be outstanding not only among youth sports, but in baseball and softball in particular.

However, Little League Baseball will continue to monitor this situation closely, and will react accordingly and appropriately when indicated.

## FACTS AND FIGURES

Total Reported Injuries to Pitchers (Batted Ball) in the U.S. by Age Group*								
	1992	1993	1994	1995	1996	1997	1998	1999
Little Lg. Baseball (ages 5-12)	120	110	109	73	53	41	33	22
Jr., Sr., Big Lg. Baseball (13-18)	25	33	25	16	22	12	10	6
Baseball Totals	145	143	134	89	75	53	43	28
Little Lg. Softball (ages 5-12)	13	10	8	9	11	7	7	5



12)

<b>Jr., Sr., Big Lg. Softball (13-18)</b>	5	11	11	7	7	10	5	5
<b>Softball Totals</b>	<b>18</b>	<b>21</b>	<b>19</b>	<b>16</b>	<b>18</b>	<b>17</b>	<b>12</b>	<b>10</b>
<b>GRAND TOTALS</b>	<b>163</b>	<b>164</b>	<b>153</b>	<b>105</b>	<b>93</b>	<b>70</b>	<b>55</b>	<b>38</b>

**Participation Figures in Little League Baseball and Softball,  
U.S.\***

	<b>1992</b>	<b>1999</b>
<b>Baseball</b>	<b>2,389,320</b>	<b>2,518,755</b>
<b>Softball</b>	<b>299,910</b>	<b>392,370</b>
<b>Totals</b>	<b>2,689,230</b>	<b>2,911,125</b>

\* Injury statistics are those reported as a result of claims filed by those leagues that have purchased group accident insurance offered through Little League Baseball. More than 95 percent of the local Little Leagues purchase group accident insurance through Little League Baseball, Incorporated.

**Maximum Bat Length/Diameter Specifications  
in Little League Baseball/Softball**

	<i>Age Range</i>	<i>Max length</i>	<i>Max diameter</i>
<b>Baseball</b>	12 year olds and under	33 inches	2 1/4 inches
<b>Baseball</b>	13-16 year olds	34 inches	2 3/4 inches
<b>Baseball</b>	16-18 year olds	38 inches	2 3/4 inches
<b>Softball</b>	12 year olds and under	33 inches	2 1/4 inches
<b>Softball</b>	13 year olds and over	34 inches	2 1/4 inches

**Pitching Distances**

	<i>Age Range</i>	<i>Distance</i>
<b>Baseball</b>	12 year olds and under	46 feet
<b>Baseball</b>	13 year olds and above	60 feet, 6 inches
<b>Baseball</b>	Junior League 13-15 year olds (optional)	54-foot
<b>Softball</b>	12 year olds and below - Majors	40 feet
<b>Softball</b>	12 year olds and below - Minors	35 feet
<b>Softball</b>	3 year olds and above	40 feet

*For more information contact:  
Lance Van Auken, Director of Publications and Media Relations  
Little League Baseball International Headquarters 570-326-1921 (after hours: 570-326-7872)  
Media E-mail: [media@littleleague.org](mailto:media@littleleague.org)*

*Note: Information from the web site "[www.safekids.org](http://www.safekids.org)" was used in this report.*

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April 19, 2000, Wednesday, PM cycle

SECTION: Sports News

LENGTH: 498 words

HEADLINE: Former designer asks government to recall high-performance metal bats

BYLINE: By MIKE CRISSEY, Associated Press Writer

DATELINE: DALLAS

BODY:

A former baseball bat designer for Louisville Slugger is asking the federal government to take high-performance metal bats off the market, saying they are unsafe.

J.W. MacKay Jr. of Mount Pleasant sent a petition to the U.S. Consumer Product Safety Commission last week, saying the agency should rule that metal baseball bats perform like wooden bats "due to the unreasonable danger and risk of injury to consumers." The agency also should recall metal bats that outperform wooden baseball bats, he said.

"If they are more dangerous, it ought to be showing up in injury statistics," said Jess Heald, spokesman for Tullahoma, Tenn.-based Worth Sports Co.

Metal baseball bats are used mostly at the college level and recreationally. The major leagues exclusively use wood.

"You've got a bunch of people hurt and a bunch of people dead," said MacKay, who designed aluminum baseball bats for Louisville Slugger from 1987-89.

"Little did I know when I designed those bats, we would end with something that was just lethal," he said. "Bats now act like tennis rackets."

The initial selling-points of aluminum bats were durability and safety, MacKay said.

Little League players often broke wooden bats, injuring hitters and infielders with splinters, and were costly to replace.

But competition between manufacturers has changed the focus to lighter more flexible bats that hit the ball faster and farther, MacKay said.

"If you make a bat that performs like wood and try to sell it for \$300, it's going nowhere," he said.

Bat manufacturers and baseball organizations said Tuesday aluminum bats weren't more dangerous than their wood counterparts.

Baseball also is one of the safest sports at the collegiate and amateur levels, they said.

A spokesman for Van Nuys, Calif.-based Easton Sports said the National Collegiate Athletic Association had adopted safe bat performance rules and testing standards that manufacturers follow. Repeated phone calls to Louisville Slugger, the U.S. Consumer Product Safety Commission and the NCAA were not returned Tuesday.

"We feel the NCAA handled this issue properly. They used independent, scientific analysis to develop the current standard. The standard is workable, and we support it," said Easton spokesman John Olguin.

Little League baseball, which has 2.5 million players ages 5-18 in the United States and 103 other countries, also has seen no reason to stop using aluminum bats, said Lance Van Auken, a spokesman for Williamsport, Pa.-based amateur league.

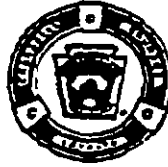
In the past eight years, the number of times pitchers have been injured by batted balls has decreased 76 percent, from 145 injuries in 1992 to 28 injuries in 1999, according to Little League statistics. Pitchers were chosen for analysis because they are least likely to be able to defend themselves against batted balls.

Home runs and batting averages during the Little League World Series also have not increased significantly, Van Auken said.

LANGUAGE: ENGLISH

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# MEDIA RELEASE



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**FOR IMMEDIATE RELEASE**

**May 14, 1998**

### **LITTLE LEAGUE BASEBALL STATEMENT ON NON-WOOD BATS**

**WILLIAMSPORT, Pa.** — Little League Baseball has received numerous inquiries from its volunteers and media regarding the safety of non-wood bats.

#### **Background**

Recent innovations in metal alloys have allowed a reduction in the weight of some models of bats, while allowing the bats to remain in conformity with the length and diameter guidelines in the various divisions of Little League Baseball and Softball. Some volunteers and those in the media have raised questions about whether the weight of the bats used in Little League games should be limited in relation to the length.

Non-wood bats were first developed, partly through research by Little League, as a safer and more cost-effective alternative to wooden bats. Non-wood bats were first used in Little League in 1971, and have almost completely replaced wood bats in all divisions of play. Wood bats, which can break in half if not used properly, are now widely used only in professional baseball.

As a member of USA Baseball, the governing body for all amateur baseball in the U.S., Little League Baseball follows the recommendation of the USA Baseball Medical and Safety Advisory Committee. The position of the Advisory Committee is that further research and data needs to be collected before any changes are made to Little League rules regarding the weight of bats. There is currently no rule in any division of Little League Baseball or Softball that places a maximum or minimum limit on the weight of bats.

#### **Statement**

At present, injury data in all divisions of Little League Baseball and Softball shows there has been a **DECREASE** in reported injuries to pitchers as a result of batted balls over the six-year period beginning in 1992. Data on injuries to pitchers is being used because the pitching position is closest to the batter, and the pitcher is the least likely among all fielders to be fully prepared when the ball is hit.

During that same six-year period, the number of injuries to other fielders as a result of batted balls have remained relatively constant or decreased. A summary of the data is attached, along with participation figures and the current bat specifications for each division.

Additionally, injury rates overall in youth baseball have fallen, while injury rates in activities such as basketball, football and in-line skating have risen, according to a recent report by the National Safe Kids Campaign. The report said baseball injuries fell by 2.63 percent from 1987-95.

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**EAS 000067**

**Little League Baseball Statement — Page 2**

Annually, less than three-tenths of one percent of U.S. Little Leaguers are injured in games or practices to the point of requiring medical treatment. Injury data for Little League are obtained through analyzing medical claims on accident insurance provided by Little League through CNA Insurance. More than 95 percent of the chartered Little League programs in the U.S. are enrolled in the Little League Group Accident Insurance plan.

In conclusion, there appears to be no indication that would cause Little League to mandate a limit on the weight of bats, based on the most current facts. However, Little League Baseball will continue to monitor this situation closely, and will react accordingly and appropriately when indicated.

###

***Attachment: Facts and Figures Page***

***For more information contact:***

***Lance Van Auken, Director of Publications and Media Relations***

***Little League Baseball International Headquarters 717-326-1921 (after hours: 717-326-7872)***

***Media E-mail: [publicrelations@littleleague.org](mailto:publicrelations@littleleague.org)***

***Visit the "Little League On-Line" WEB Site: [www.littleleague.org](http://www.littleleague.org)***

**EAS 000068**

# FACTS AND FIGURES

## Little League Baseball, Incorporated

### Media Relations Department

#### TOTAL REPORTED INJURIES TO PITCHERS, (BATTED BALL), U.S., BY AGE GROUP

	1992	1993	1994	1995	1996	1997
Little League Baseball (ages 5-12)	120	110	109	73	53	41
Senior League Baseball (ages 13-15)	23	28	24	15	21	11
Big League Baseball (ages 16-18)	2	5	1	1	1	1
<b>Baseball Totals</b>	<b>145</b>	<b>143</b>	<b>109</b>	<b>89</b>	<b>75</b>	<b>53</b>
Little League Softball (ages 5-12)	13	10	8	9	11	7
Senior League Softball (ages 13-15)	5	11	10	6	7	10
Big League Softball (ages 16-18)	0	0	1	1	0	0
<b>Softball Totals</b>	<b>18</b>	<b>21</b>	<b>19</b>	<b>16</b>	<b>18</b>	<b>17</b>
<b>GRAND TOTALS</b>	<b>163</b>	<b>164</b>	<b>128</b>	<b>105</b>	<b>93</b>	<b>70</b>

#### Participation Figures in Little League Baseball and Softball, U.S.

	1992	1997
Baseball	2,292,015	2,465,935
Softball	294,060	392,640
<b>Totals</b>	<b>2,586,075</b>	<b>2,858,575</b>

Maximum Bat Length/Diameter Specifications in Little League Baseball/Softball  
 Baseball, 12 year olds and under - Max length: 33 inches; Max diameter: 2 1/4 inches  
 Baseball, 13-15 year olds - Max length: 34 inches; Max diameter: 2 3/4 inches  
 Baseball, 16-18 year olds - Max length: 38 inches; Max diameter: 2 3/4 inches  
 Softball, 12 year olds and under - Max length: 33 inches; Max diameter: 2 1/4 inches  
 Softball, 13 year olds and over - Max length: 34 inches; Max diameter: 2 1/4 inches

#### Pitching Distances

Baseball, 12 year olds and under - 46 feet  
 Baseball, 13 year olds and above - 60 feet, 6 inches (Optional 54-foot distance for Senior Minors and Junior League, 13-15 year olds)  
 Softball, 12 year olds and below - Majors: 40 feet; Minors 35 feet  
 Softball, 13 year olds and above - 40 feet

###

For more information contact:

Lance Van Auken, Director of Publications and Media Relations  
 Little League Baseball International Headquarters (717) 326-1921  
 Media E-mail: [publicrelations@littleleague.org](mailto:publicrelations@littleleague.org)  
 Visit the "Little League On-Line" WEB Site: <http://www.littleleague.org>

EAS 000069

# PITCHERS HIT BY BATTED BALL

YEAR	BASEBALL			SOFTBALL			TOTAL
	LL	SR	BL	LL	SR	BL	
1992							
Players	1,995,453	209,051	28,038	201,316	71,085	8,895	2,473,439
Injuries	120	23	2	13	5	0	163
Percent	.006%	.011%	.007%	.007%	.007%	.000%	.007%
1993							
Players	2,004,094	212,818	28,876	215,841	77,776	10,461	2,549,867
Injuries	110	28	5	10	11	0	164
Percent	.006%	.013%	.017%	.005%	.014%	.000%	.006%
1994							
Players	2,046,979	306,848	31,841	246,239	91,797	11,865	2,735,369
Injuries	84	24	1	8	10	1	128
Percent	.004%	.008%	.003%	.003%	.011%	.008%	.005%
1995							
Players	2,060,658	300,122	30,028	260,629	96,887	11,242	2,759,346
Injuries	73	15	1	9	6	1	105
Percent	.004%	.005%	.003%	.004%	.006%	.009%	.004%
1996							
Players	2,078,439	288,122	29,873	271,655	99,563	11,585	2,779,148
Injuries	53	21	1	11	7	0	93
Percent	.003%	.007%	.003%	.004%	.007%	.000%	.003%
1997							
Players	2,061,785	272,977	29,290	269,487	95,884	11,221	2,740,634
Injuries	41	11	1	7	10	0	70
Percent	.002%	.004%	.003%	.003%	.010%	.000%	.003%

## PITCHERS HIT BY BATTED BALL LITTLE LEAGUE BASEBALL (AG 13 AND UNDER)

INJURY	TYPE OF INJURIES						BODY PART	BODY PART INJURED					
	1992	1993	1994	1995	1996	1997		1992	1993	1994	1995	1996	1997
Contusion	62	67	62	32	28	16	Head	13	83	62	56	41	22
Fracture	24	17	16	19	8	12	Lower Extremity	19	19	12	7	5	3
Dental	14	8	4	11	9	4	Upper Extremity	19	19	11	9	3	9
Laceration	9	5	4	3	5	4	Trunk	9	9	9	1	4	7
Sprain	3	2	1	1	0	2							
Concussion	1	0	4	1	1	0							
Hematomas	1	1	0	1	0	0							
Abrasion	0	0	0	1	0	1							
Dislocation	0	1	0	0	0	1							
Fatality	0	0	0	0	0	0							
Hemorrhage	0	0	2	0	0	0							
Other	6	6	0	2	1	0							
Unknown	1	4	1	2	1	1							
TOTAL	120	110	84	73	53	41	TOTAL	120	110	84	73	53	41

EAS 000070

# Injury Surveillance System



## 1996-97 Baseball

CR 00443